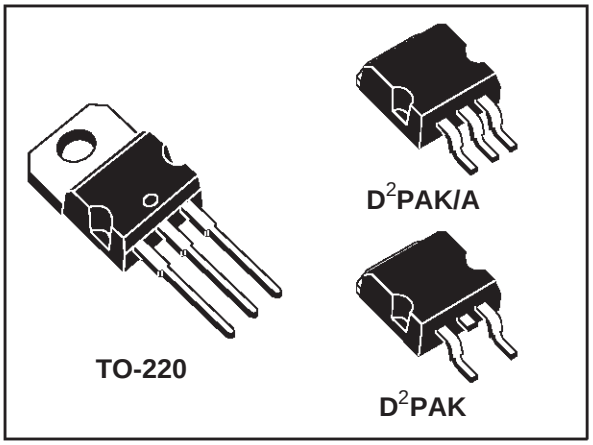
LD1085 SERIES

3A LOW DROP FIXED AND ADJUSTABLE POSITIVE VOLTAGE REGULATORS

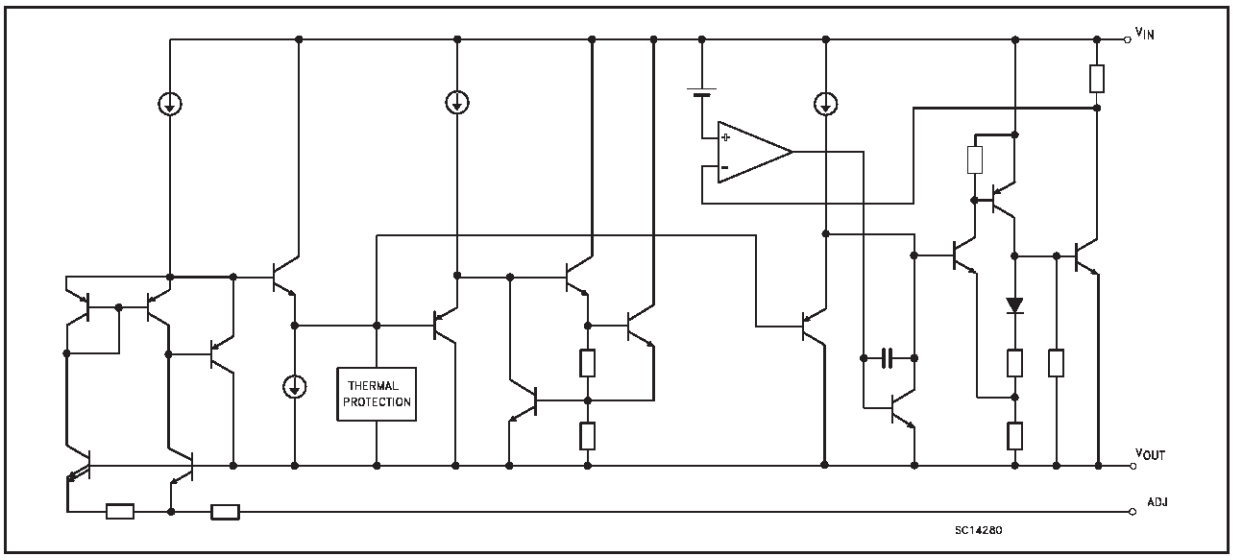
- TYPICAL DROPOUT VOLTAGE 1.3V AT 3A
- THREE TERMINAL ADJUSTABLE OR FIXED OUTPUT VOLATGE 1.8V,2.5V, 2.85V, 3.3V, 3.6V, 5V, 8V, 9V, 12V
- GUARANTEED OUTPUT CURRENT UP TO 3A
- OUTPUT TOLERANCE ±1% AT 25°C AND ±2% IN FULL TEMPERATURE RANGE
- INTERNAL POWER AND THERMAL LIMIT
- WIDE OPERATING TEMPERATURE RANGE -40°C TO 125°C
- PACKAGE AVAILABLE: TO-220 D^2PAK
- PINOUT COMPATIBILITY WITH STANDARD ADJUSTABLE VOLTAGE REGULATORS



DESCRIPTION

The LD1085 is a LOW DROP Voltage Regulator able to provide up to 3A of Output Current. Dropout is guaranteed at a maximum of 1.5V at the maximum output current, decreasing at lower loads. The LD1085 is pin compatible with older 3-terminal adjustable regulators, but has better performances in term of drop and output tolerance. A 2.85V output version is suitable for SCSI-2 active termination. Unlike PNP regulators, where a part of the output current is wasted as quiescent current, the LD1085 quiescent current flow into the load, so increase efficency. Only a 10 µF minimum capacitor is need for stability. The device is supplied in TO-220, D^2PAK and D^2PAK/A packages. On chip trimming allows the regulator to reach a very tight output voltage tolerance, within ± 1% at 25°C.

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

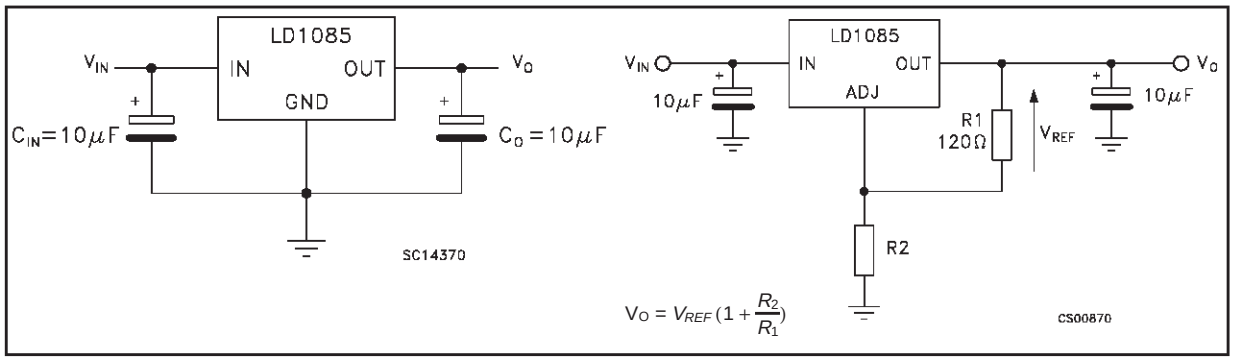
Symbol	Parameter	Value	Unit
V_{IN}	DC Input Voltage	30	V
I_{OUT}	Output Current	Internally Limited	mA
P_{tot}	Power Dissipation	Internally Limited	mW
T_{stg}	Storage Temperature Range	-50 to 150	°C
T_{op}	Operating Junction Temperature Range	-40 to 125	°C

Absolute Maximum Ratings are those value beyond which damage to the device may occur. Functional operation under these condition is not implied. Over the above suggested Max Power Dissipation a Short Circuit could definetively damage the device.

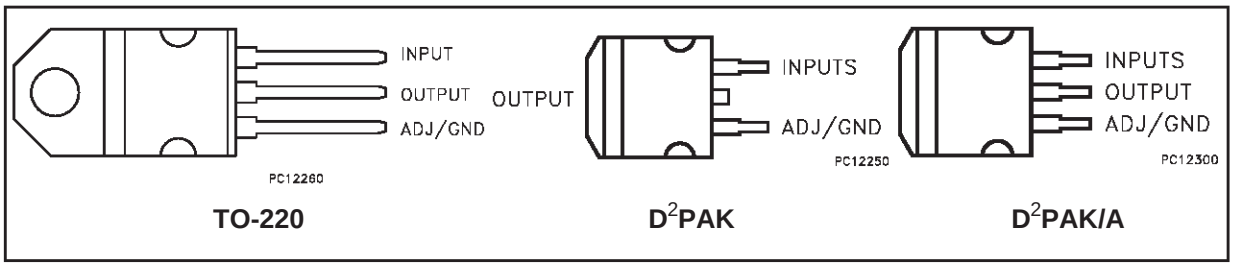
THERMAL DATA

Symbol	Parameter	TO-220	D^2PAK	Unit
$R_{thj-case}$	Thermal Resistance Junction-case	3	3	°C/W
$R_{thj-amb}$	Thermal Resistance Junction-ambient	50	62.5	°C/W

APPLICATION CIRCUIT FOR FIXED AND ADJUSTABLE VERSION



CONNECTION DIAGRAM AND ORDERING NUMBERS (top view)



TO-220 **D^2PAK** **D^2PAK/A**

TO-220	D^2PAK (**)	D^2PAK/A (**)	Output Voltage
LD1085V18	LD1085D2T18	LD1085D2M18	1.8V
LD1085V25	LD1085D2T25	LD1085D2M25	2.5V
LD1085V28	LD1085D2T28	LD1085D2M28	2.85V
LD1085V33	LD1085D2T33	LD1085D2M33	3.3V
LD1085V36	LD1085D2T36	LD1085D2M36	3.6V
LD1085V50	LD1085D2T50	LD1085D2M50	5V
LD1085V80	LD1085D2T80	LD1085D2M80	8V
LD1085V90	LD1085D2T90	LD1085D2M90	9V
LD1085V120	LD1085D2T120	LD1085D2M120	12V
LD1085V	LD1085D2T	LD1085D2M	1.25 to 28V

(**) Available in Tape & Reel with the suffix "R" for fixed version and "-R" for adjustable version.

ELECTRICAL CHARACTERISTICS FOR LD1086#18 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 4.8 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	1.782	1.8	1.818	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} = 3.4 to 30 V	1.764	1.8	1.836	V
ΔV_O	Line Regulation	V_{IN} = 3.4 to 18 V I_O = 0 mA T_j = 25 °C		0.2	4	mV
ΔV_O	Line Regulation	V_{IN} = 3.4 to 18 V I_O = 0 mA		0.4	4	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		2	10	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		4	20	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 5.3 ± 1V	60	75		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#25 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 5.5 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	2.475	2.5	2.525	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{in} = 4.1 to 30 V	2.45	2.5	2.55	V
ΔV_O	Line Regulation	V_{in} = 4.1 to 18 V I_O = 0 mA T_j = 25 °C		0.2	5	mV
ΔV_O	Line Regulation	V_{in} = 4.1 to 18 V I_O = 0 mA		0.4	5	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		2	10	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		4	20	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{in} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{in} = 7.5 ± 3V	60	72		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#285 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 5.85 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	2.821	2.85	2.879	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} = 4.5 to 30 V	2.793	2.85	2.907	V
ΔV_O	Line Regulation	V_{IN} = 4.5 to 18 V I_O = 0 mA T_j = 25 °C		0.2	6	mV
ΔV_O	Line Regulation	V_{IN} = 4.5 to 18 V I_O = 0 mA		0.5	6	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		3	15	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		7	20	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 7.85 ± 3V	60	72		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#33 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 6.3 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	3.267	3.3	3.333	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} = 4.9 to 30 V	3.234	3.3	3.366	V
ΔV_O	Line Regulation	V_{IN} = 4.9 to 18 V I_O = 0 mA T_j = 25 °C		0.5	6	mV
ΔV_O	Line Regulation	V_{IN} = 4.9 to 18 V I_O = 0 mA		1	6	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		3	15	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		7	20	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 8.3 ± 3V	60	72		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#36 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 5.85 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	3.564	3.6	3.636	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} = 5.2 to 30 V	3.528	3.6	3.672	V
ΔV_O	Line Regulation	V_{IN} = 5.2 to 18 V I_O = 0 mA T_j = 25 °C		0.5	10	mV
ΔV_O	Line Regulation	V_{IN} = 5.2 to 18 V I_O = 0 mA		1	10	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		3	15	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		7	20	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 8.6 ± 3V	60	72		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#50 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 8 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	4.95	5	5.05	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} = 6.6 to 30 V	4.9	5	5.1	V
ΔV_O	Line Regulation	V_{IN} = 6.6 to 20 V I_O = 0 mA T_j = 25 °C		0.5	10	mV
ΔV_O	Line Regulation	V_{IN} = 6.6 to 20 V I_O = 0 mA		1	10	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		5	20	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		10	35	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 10 ± 3V	60	72		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#80 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 11 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	7.92	8	8.08	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} =9.8 to 30 V	7.84	8	8.16	V
ΔV_O	Line Regulation	V_{IN} = 9.8 to 20 V I_O = 0 mA T_j = 25 °C		1	18	mV
ΔV_O	LINe Regulation	V_{IN} = 9.8 to 20 V I_O = 0 mA		2	18	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		8	30	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		12	60	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 13 ± 3V	54	71		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#90 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 12 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	8.91	9	9.09	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} = 11 to 30 V	8.82	9	9.18	V
ΔV_O	Line Regulation	V_{IN} = 11 to 20 V I_O = 0 mA T_j = 25 °C		1	20	mV
ΔV_O	Line Regulation	V_{IN} = 11 to 20 V I_O = 0 mA		2	20	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		8	30	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		12	60	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 14 ± 3V	54	70		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

ELECTRICAL CHARACTERISTICS FOR LD1085#120 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 15 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 0 mA T_j = 25 °C	11.88	12	12.12	V
V_O	Output Voltage (Note 1)	I_O = 0 to 3 A V_{IN} = 13.8 to 30 V	11.76	12	12.24	V
ΔV_O	Line Regulation	V_{IN} = 13.8 to 25 V I_O = 0 mA T_j = 25 °C		1	25	mV
ΔV_O	Line Regulation	V_{IN} = 13.8 to 25 V I_O = 0 mA		2	25	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A T_j = 25 °C		12	36	mV
ΔV_O	Load Regulation	I_O = 0 to 3 A		24	72	mV
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
I_d	Quiescent Current	$V_{IN} \leq$ 30 V		5	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.008	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF V_{IN} = 17 ± 3V	54	66		dB
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

Note1: See short-circuit curve for available output current at fixed dropout.

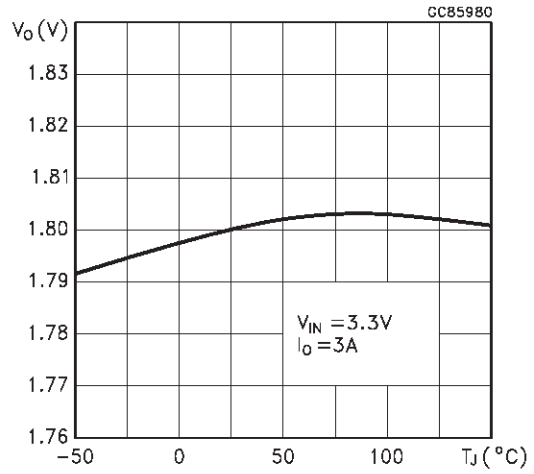
ELECTRICAL CHARACTERISTICS FOR LD1085 (refer to the test circuits, T_j = -40 to 125 °C, V_{IN} = 4.25 V, C_{IN} = C_O = 10 µF unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 10 mA T_j = 25 °C	1.237	1.25	1.263	V
V_O	Output Voltage (Note 1)	I_O = 0.01 to 3 A V_{IN} = 2.8 to 30 V	1.225	1.25	1.275	V
ΔV_O	Line Regulation	V_{IN} = 2.75 to 16.5V I_O =10mA T_j =25°C		0.015	0.2	%
ΔV_O	Line Regulation	V_{IN} = 2.75 to 16.5V I_O =10mA		0.035	0.2	%
ΔV_O	Load Regulation	I_O = 0.01 to 3 A T_j = 25 °C		0.1	0.3	%
ΔV_O	Load Regulation	I_O = 0.01 to 3 A		0.2	0.4	%
V_d	Dropout Voltage	I_O = 3 A		1.3	1.5	V
$I_{O(min)}$	Minimum Load Current	V_{IN} = 30 V		3	10	mA
I_{SC}	Short Circuit Current	V_{IN} - V_O = 5V V_{IN} - V_O = 25V	3.2 0.2	4.5 0.5		A
	Thermal Regulation	T_a = 25 °C 30ms Pulse		0.01	0.04	%/W
SVR	Supply Voltage Rejection	I_O = 3 A f = 120 Hz C_O = 25µF C_{ADJ} = 25µF V_{IN} = 6.25 ± 3V	60	75		dB
I_{ADJ}	Adjust pin Current	I_O = 10 mA V_{IN} = 4.25 V		55	120	µA
ΔI_{ADJ}	Adjust pin Current Change	V_{IN} = 2.75 to 16.5 V I_O = 0.01 to 3A		0.2	5	µA
eN	Output Noise Voltage	B = 10Hz to 10KHz T_a = 25 °C		0.003		%
S	Temperature Stability			0.5		%
S	Long Term Stability	1000 hrs T_a = 125 °C		0.5		%

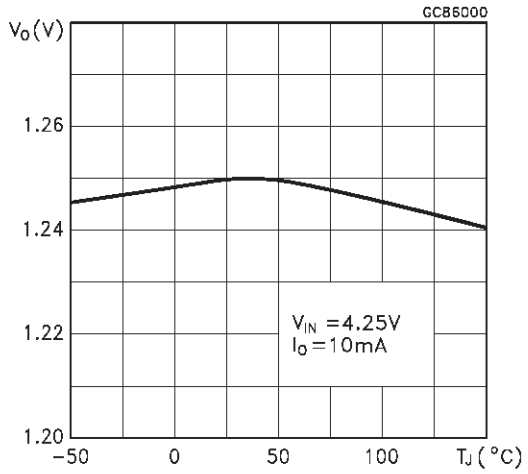
Note1: See short-circuit curve for available output current at fixed dropout.

TYPICAL CHARACTERISTICS (unless otherwise specified T_J=125°C, C_{IN}=C_O=10µF)

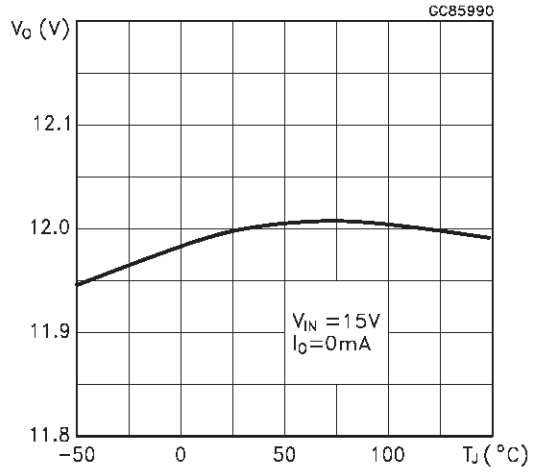
Output Voltage vs Temperature



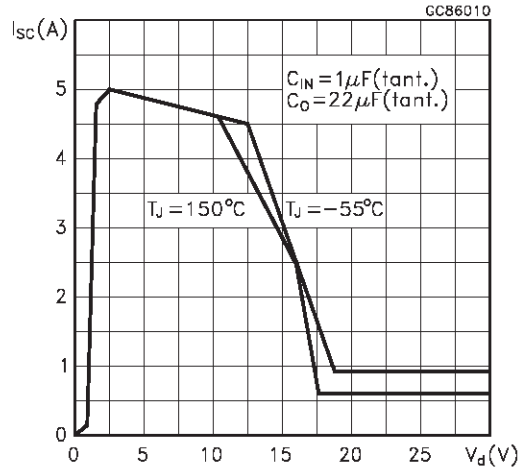
Output Voltage vs Temperature



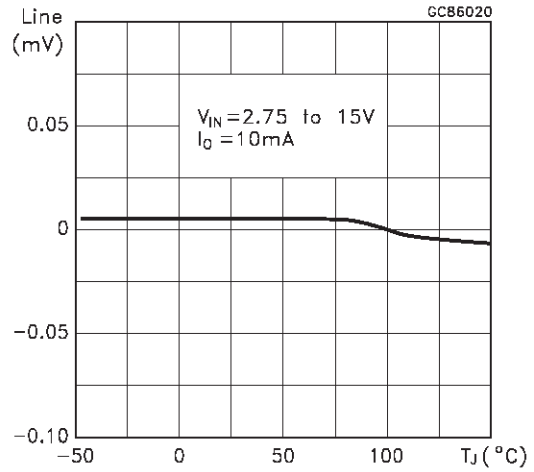
Output Voltage vs Temperature



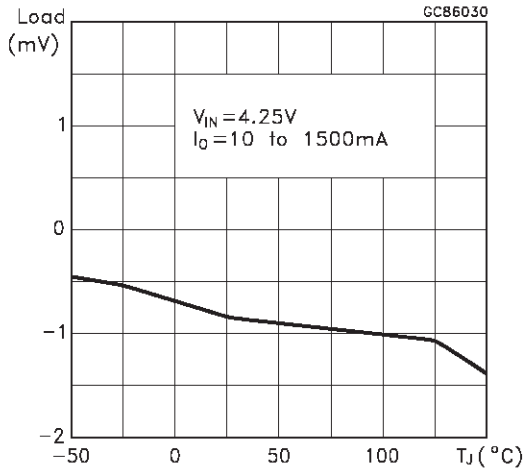
Short Circuit Current vs Dropout Voltage



Line Regulation vs Temperature

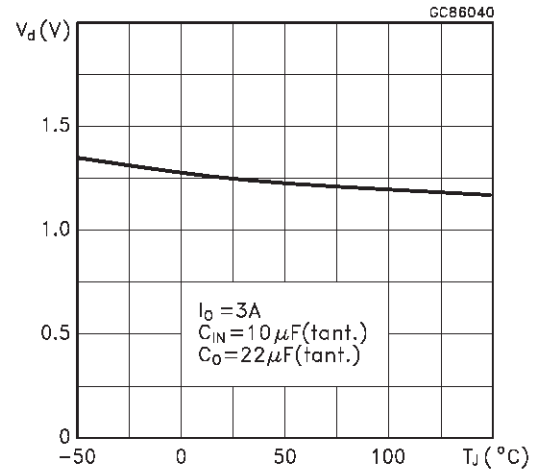


Load Regulation vs Temperature

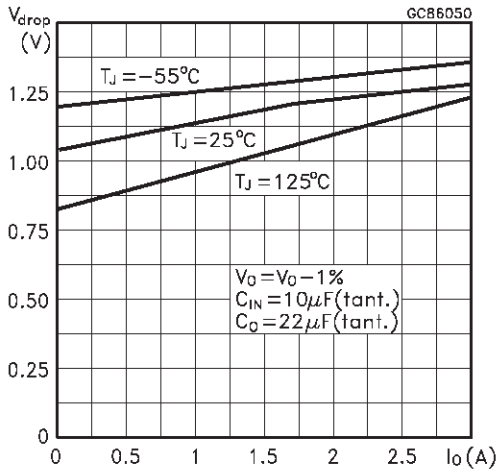


TYPICAL CHARACTERISTICS (Continued)

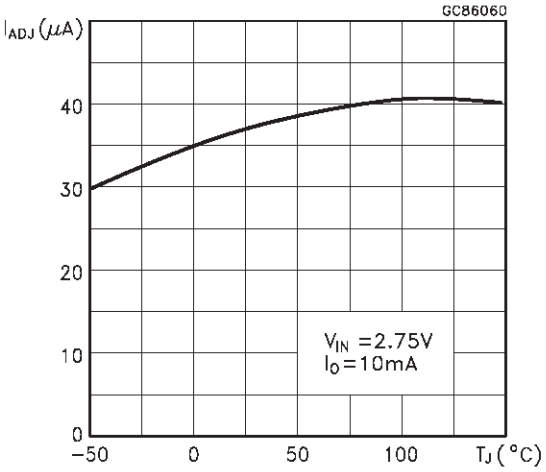
Dropout Voltage vs Temperature



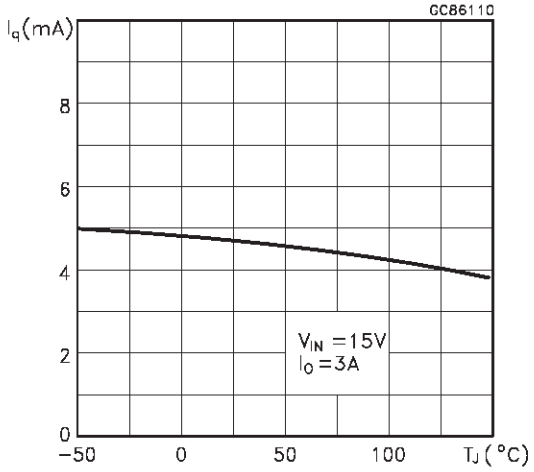
Dropout Voltage vs Output Current



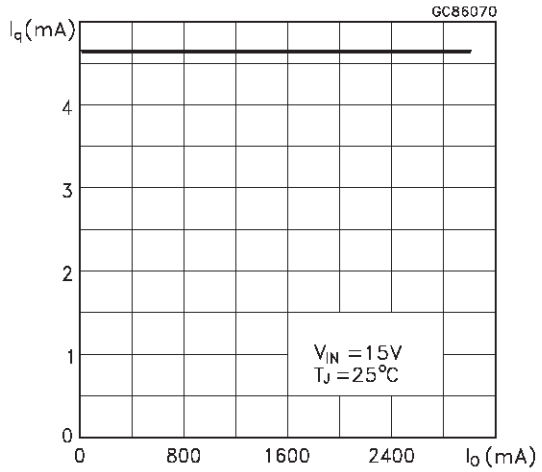
Adjust Pin Current vs Temperature



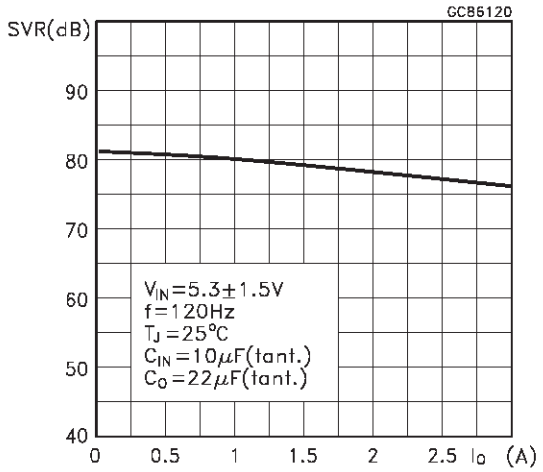
Quiescent Current vs Temperature



Quiescent Current vs Output Current

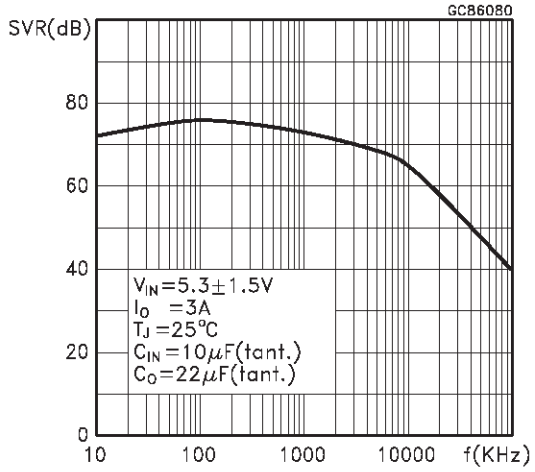


Supply Voltage Rejection vs Output Current

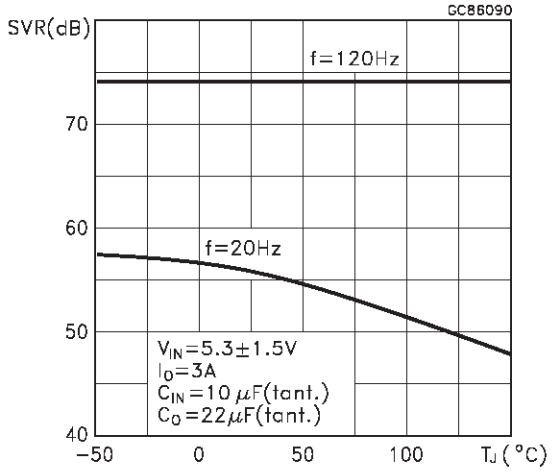


TYPICAL CHARACTERISTICS (Continued)

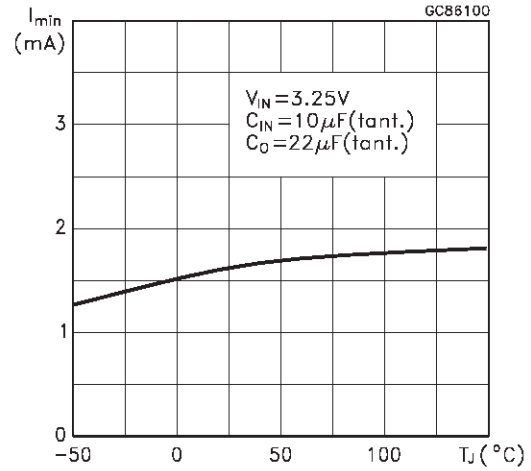
Supply Voltage Rejection vs Frequency



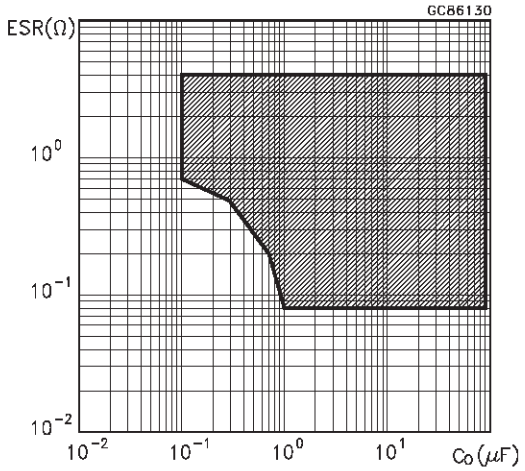
Supply Voltage Rejection vs Temperature



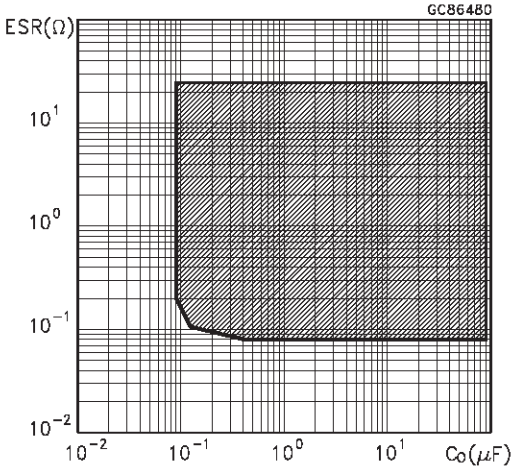
Minimum Load Current vs Temperature



Stability

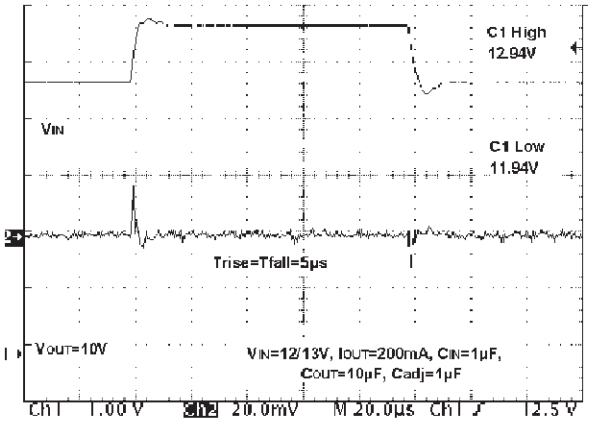


Stability

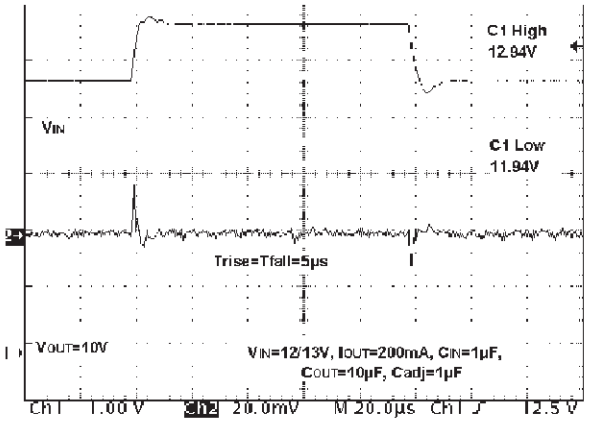


TYPICAL CHARACTERISTICS (Continued)

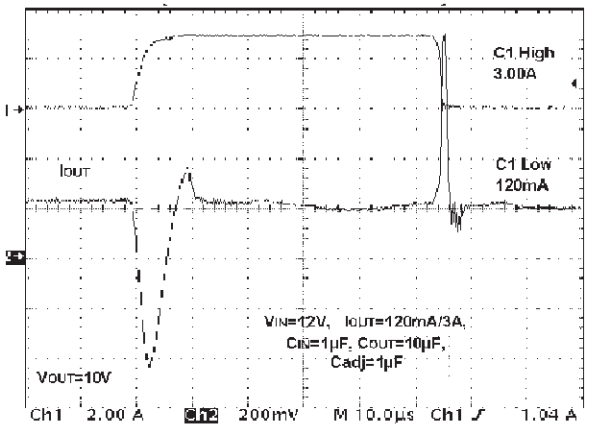
Line Transient



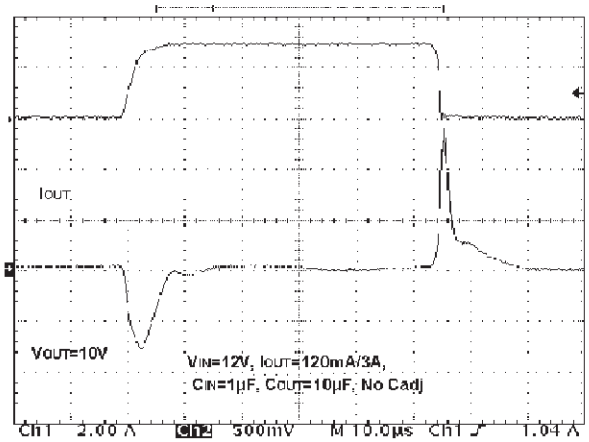
Line Transient



Load Transient

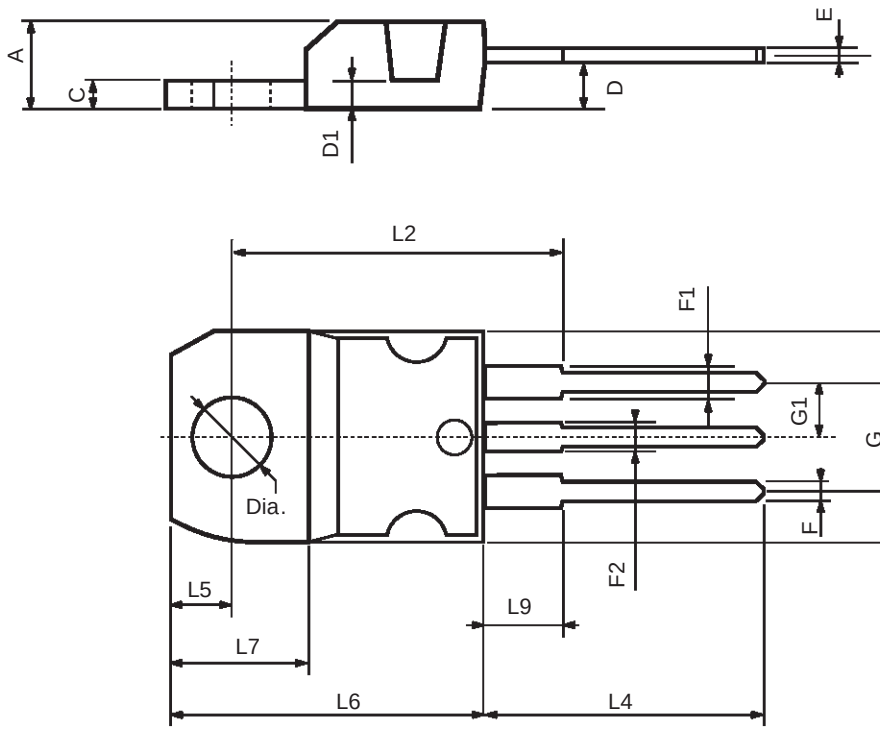


Load Transient



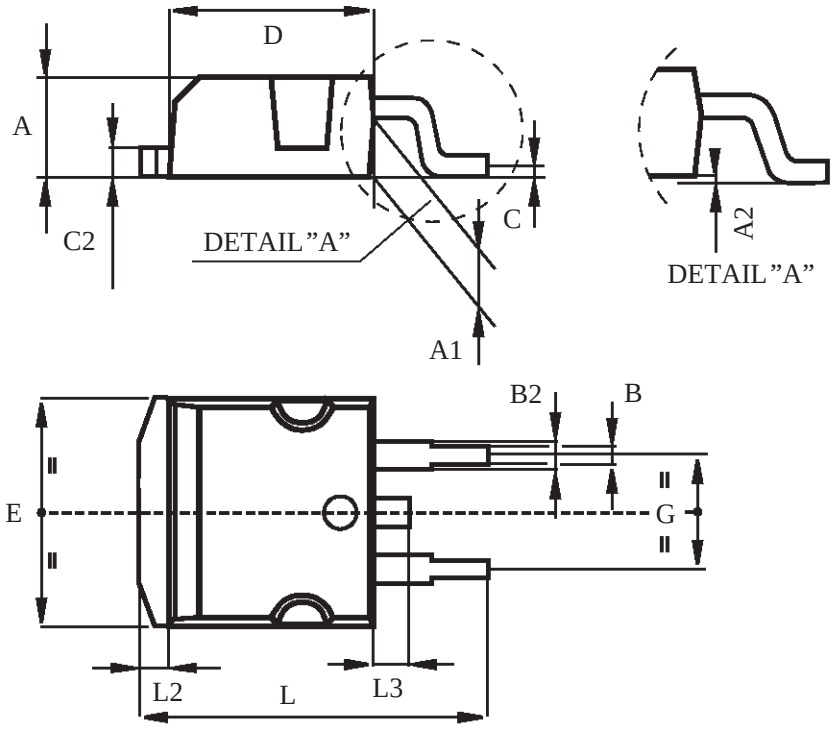
TO-220 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
C	1.23		1.32	0.048		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
E	0.49		0.70	0.019		0.027
F	0.61		0.88	0.024		0.034
F1	1.14		1.70	0.044		0.067
F2	1.14		1.70	0.044		0.067
G	4.95		5.15	0.194		0.203
G1	2.4		2.7	0.094		0.106
H2	10.0		10.40	0.393		0.409
L2		16.4			0.645	
L4	13.0		14.0	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.2		6.6	0.244		0.260
L9	3.5		3.93	0.137		0.154
DIA.	3.75		3.85	0.147		0.151



TO-263 (D^2PAK) MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.4		4.6	0.173		0.181
A1	2.49		2.69	0.098		0.106
B	0.7		0.93	0.027		0.036
B2	1.14		1.7	0.044		0.067
C	0.45		0.6	0.017		0.023
C2	1.23		1.36	0.048		0.053
D	8.95		9.35	0.352		0.368
E	10		10.4	0.393		0.409
G	4.88		5.28	0.192		0.208
L	15		15.85	0.590		0.624
L2	1.27		1.4	0.050		0.055
L3	1.4		1.75	0.055		0.068



P011P6/F

D^2PAK/A MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.4		4.6	0.173		0.181
A1	2.49		2.69	0.098		0.106
B	0.7		0.93	0.027		0.036
B2	1.14		1.7	0.044		0.067
C	0.45		0.6	0.017		0.023
C2	1.21		1.36	0.047		0.053
D	8.95		9.35	0.352		0.368
E	10		10.4	0.393		0.409
G	4.88		5.28	0.192		0.208
L	15		15.85	0.590		0.624
L2	1.27		1.4	0.050		0.055