

MJE5852

HIGH VOLTAGE PNP POWER TRANSISTOR

- SGS-THOMSON PREFERRED SALESTYPE
- PNP TRANSISTOR
- HIGH VOLTAGE CAPABILITY

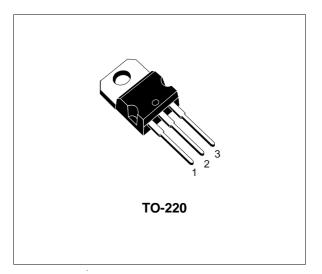
APPLICATIONS:

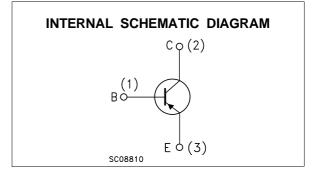
- SWITCHING REGULATORS
- MOTOR CONTROL
- INVERTERS

DESCRIPTION

The MJE5852 is manufactured using high voltage PNP multiepitaxial technology for high switching speed and high voltage capability.

It is intended for use in high frequency and efficiency converters, switching regulators and motor control.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
VCES	Collector-Emitter Voltage (V _{BE} = 0)	450	V
V_{CEO}	Collector-Emitter Voltage (I _B = 0)	400	V
V _{EBO}	Emitter-Base Voltage $(I_C = 0)$	7	V
Ι _C	Collector Current	8	A
Ісм	Collector Peak Current (t _p < 5ms)	16	A
IB	Base Current	4	A
Івм	Base Peak Current (t _p < 5ms)	8	A
Ptot	Total Dissipation at $T_c \le 25$ °C	80	W
T _{stg}	Storage Temperature	-65 to 150	°C
Tj	Max. Operating Junction Temperature	150	°C

For PNP type voltage and current values are negative.

THERMAL DATA

R _{thj-case}	Thermal Resistance Junction-case	Max	1.56	°C/W
$R_{thj-amb}$	Thermal Resistance Junction-ambient	Max	62.5	°C/W

ELECTRICAL CHARACTERISTICS ($T_{case} = 25 \ ^{\circ}C$ unless otherwise specified)

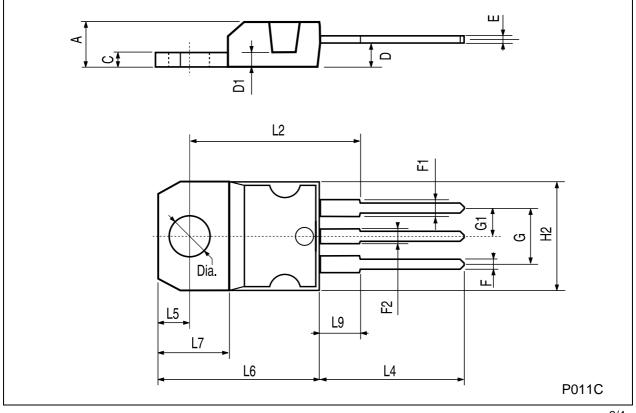
Symbol	Parameter	Test Conditions	Min.	Тур.	Max.	Unit
I _{CES}	Collector Cut-off Current (V _{BE} = -1.5V)	V _{CE} = 450 V			500	μA
I _{EBO}	Emitter Cut-off Current $(I_C = 0)$	V _{EB} = 6 V			1	mA
$V_{CEO(sus)^*}$	Collector-Emitter Sustaining Voltage (I _B =0)	I _C = 10 mA	400			V
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	$ \begin{array}{ll} I_{C} = 4 \ A & I_{B} = 1 \ A \\ I_{C} = 8 \ A & I_{B} = 3 \ A \end{array} $			2 5	V V
V _{BE(sat)} *	Base-Emitter Saturation Voltage	I _C = 4 A I _B = 1 A			1.5	V
h _{FE} *	DC Current Gain		15 5			
t _s t _f	RESISTIVE LOAD Storage Time Fall Time				2 0.5	μs μs

* Pulsed: Pulse duration = $300 \,\mu$ s, duty cycle 1.5 % For PNP type voltage and current values are negative.



DIM.	mm		inch			
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
А	4.40		4.60	0.173		0.181
С	1.23		1.32	0.048		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
Е	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





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