

SANYO

No.2751A

2SD2048

NPN Triple Diffused Planar Silicon Transistor

Driver Applications

Applications

- . Motor drivers, printer hammer drivers, relay drivers, voltage regulator control

Features

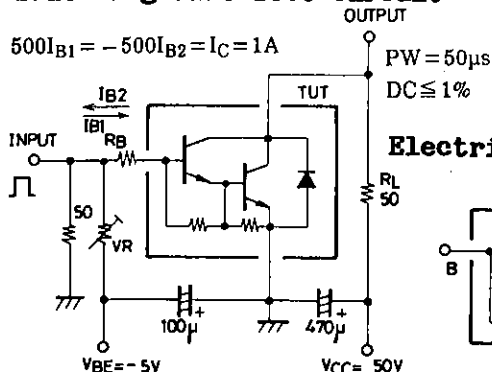
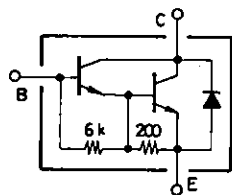
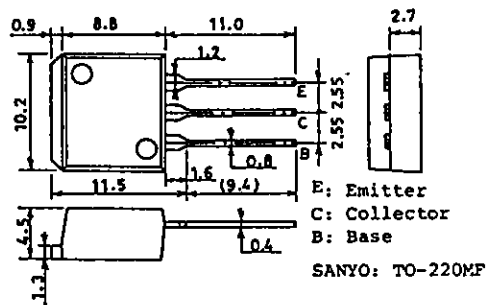
- . Suitable for sets whose height is restricted
- . High DC current gain
- . Large current capacity and wide ASO
- . Package: TO-220MF

Absolute Maximum Ratings at $T_a=25^{\circ}\text{C}$

Collector to Base Voltage	V_{CBO}	110	V	
Collector to Emitter Voltage	V_{CEO}	100	V	
Emitter to Base Voltage	V_{EBO}	6	V	
Collector Current	I_C	3	A	
Peak Collector Current	i_{cp}	5	A	
Collector Dissipation	P_C	1.65	W	
		$T_c=25^{\circ}\text{C}$	30	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$	
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$	

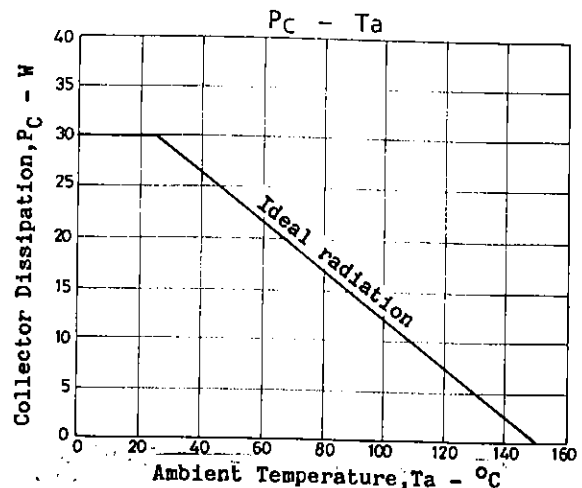
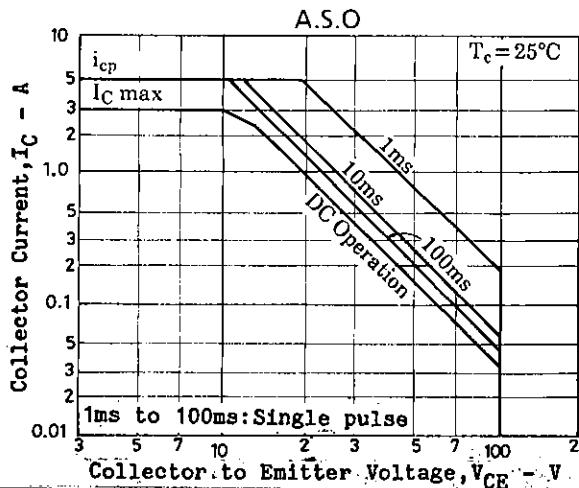
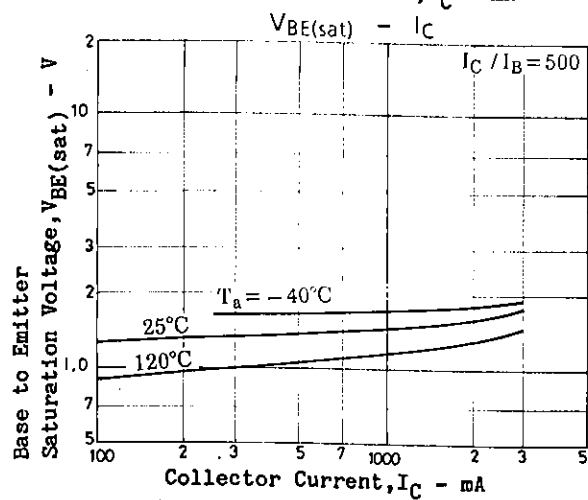
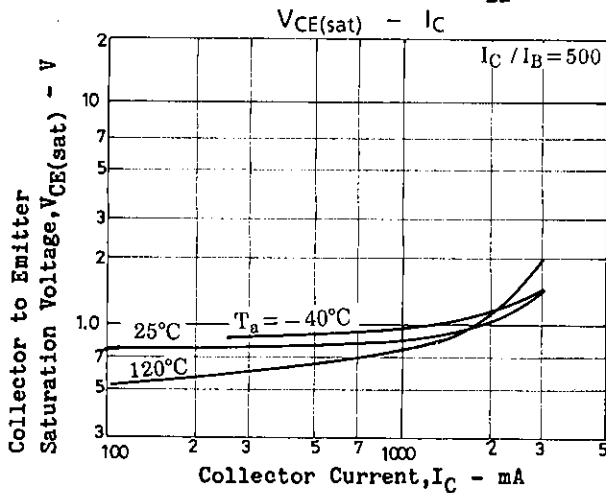
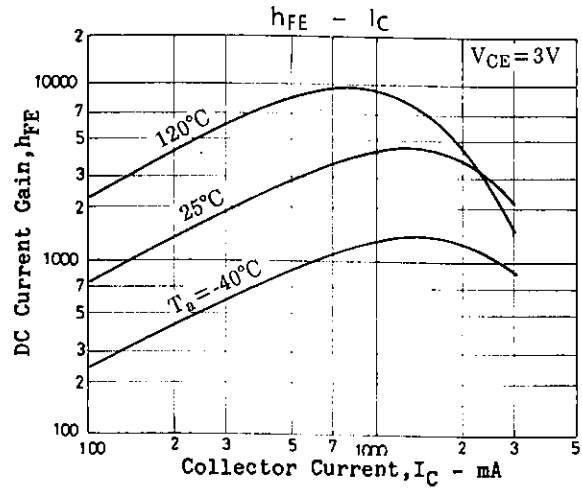
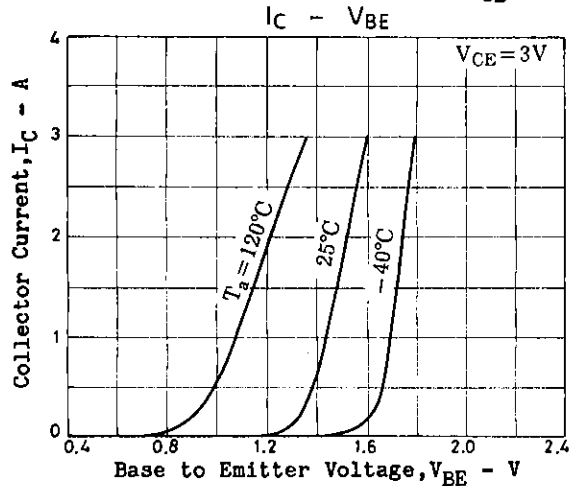
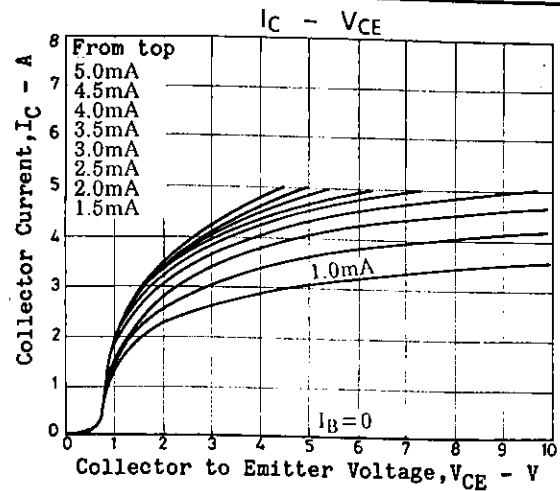
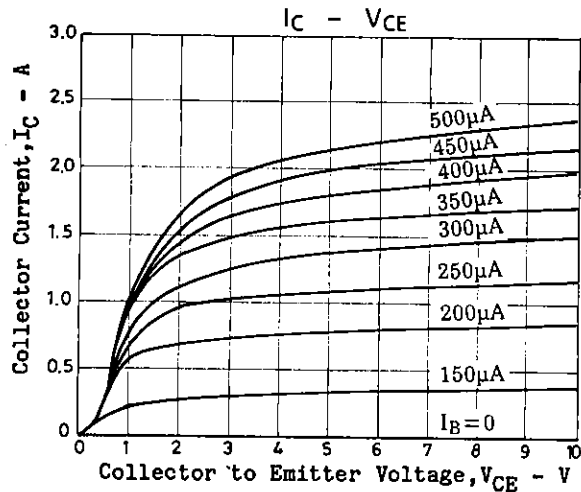
Electrical Characteristics at $T_a=25^{\circ}\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=80\text{V}, I_E=0$			0.1	mA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=5\text{V}, I_C=0$			3	mA
DC Current Gain	h_{FE}	$V_{CE}=3\text{V}, I_C=1.5\text{A}$	1500	4000		
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5\text{A}, I_B=3\text{mA}$		0.9	1.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=1.5\text{A}, I_B=3\text{mA}$			2.0	V
Gain-Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=1.5\text{A}$		20		MHz
C-B Breakdown Voltage	$V_{(BR)CB0}$	$I_C=5\text{mA}, I_E=0$	110			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, R_{BE}=\infty$	100			V
Turn-on Time	t_{on}	See Specified Test Circuit.		0.7		μs
Storage Time	t_{stg}	See Specified Test Circuit.		5.0		μs
Fall Time	t_r	See Specified Test Circuit.		1.2		μs

Switching Time Test Circuit**Electrical Connection****Package Dimensions 2049B**
(unit: mm)**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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