

SANYO

No.2753A

2SD2050NPN 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-220MP

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

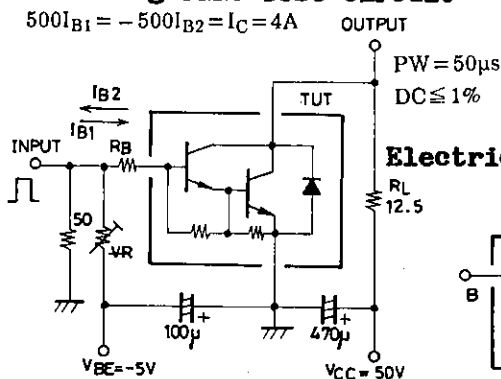
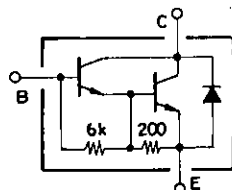
Absolute Maximum Ratings at Ta=25°C			unit	
Collector to Base Voltage	V _{CBO}	110	V	
Collector to Emitter Voltage	V _{CEO}	100	V	
Emitter to Base Voltage	V _{EB0}	6	V	
Collector Current	I _C	8	A	
Peak Collector Current	i _{cp}	12	A	
Collector Dissipation	P _C	1.65	W	
		Tc=25°C	40	W
Junction Temperature	T _j	150	°C	
Storage Temperature	T _{stg}	-55 to +150	°C	

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

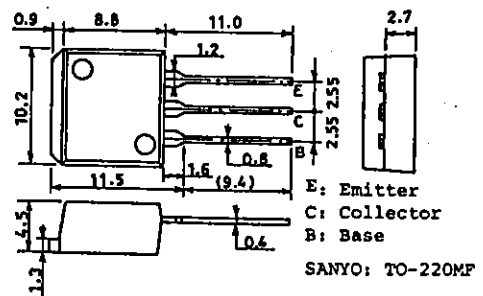
			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=80\text{V}, I_E=0$			0.1	mA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=5\text{V}, I_C=0$			3.0	mA
DC Current Gain	h_{FE}	$V_{CE}=3\text{V}, I_C=4\text{A}$	1500	4000		
Gain-Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=4\text{A}$		20		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=4\text{A}, I_B=8\text{mA}$		0.9	1.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=4\text{A}, I_B=8\text{mA}$			2.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=5\text{mA}, I_E=0$	110			V
C-E Breakdown Voltage	$V_{(BR)CBO}$	$I_C=50\text{mA}, R_{BE}=\infty$	100			V
Turn-on Time	t_{on}	See Specified Test Circuit.	0.6			μs
Storage Time	t_{stg}	See Specified Test Circuit.	4.8			μs
Fall Time	t_r	See Specified Test Circuit.	1.6			μs

Switching Time Test Circuit

$$500I_{B1} = -500I_{B2} = I_C = 4\text{A}$$

**Electrical Connection**Unit (resistance: Ω , capacitance: F)**Package Dimensions 2049**

(unit: mm)

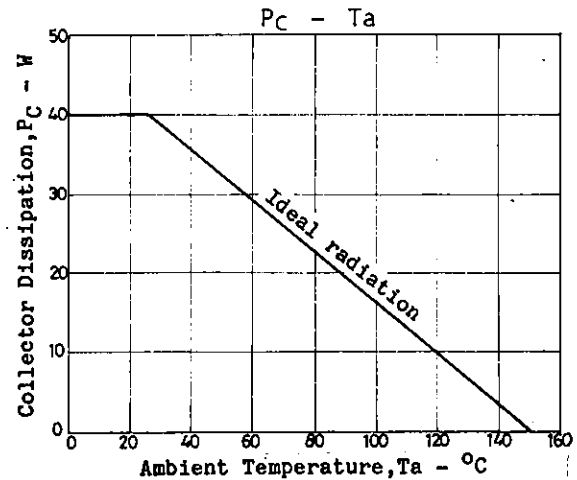
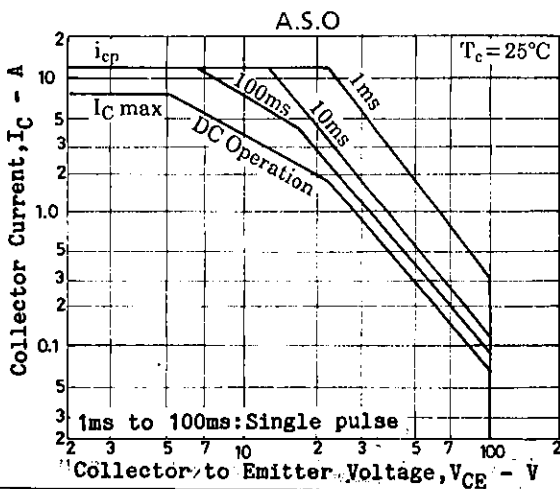
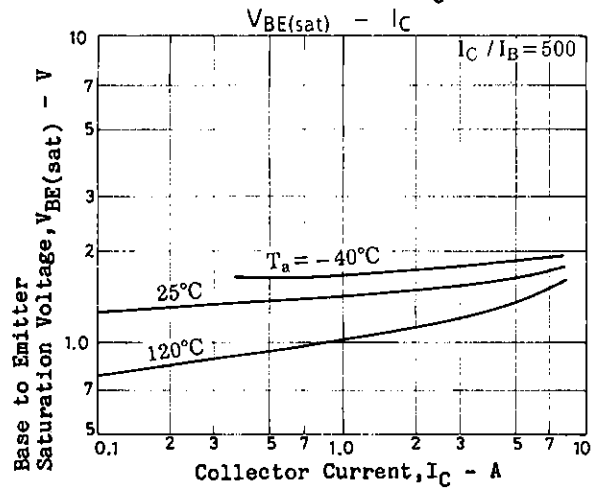
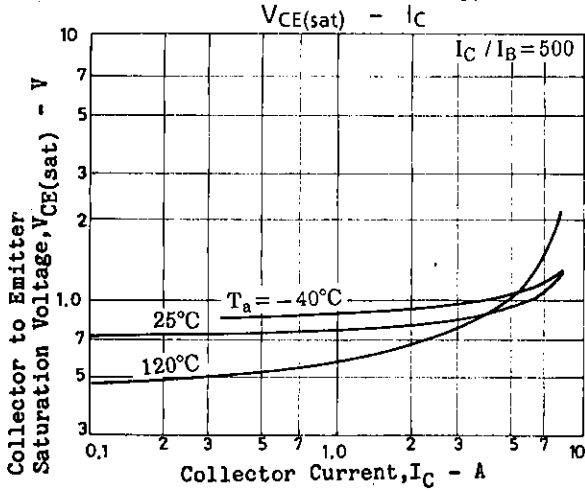
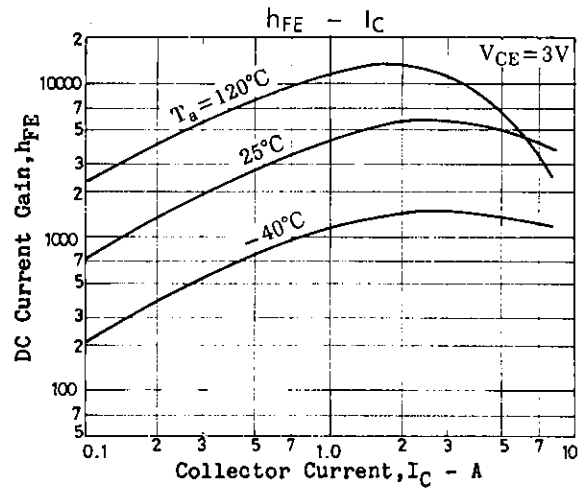
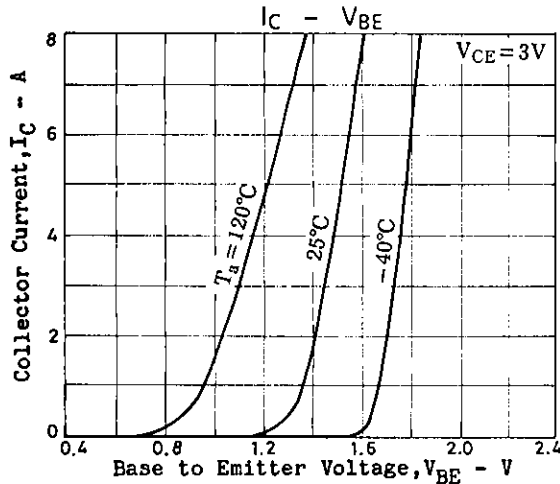
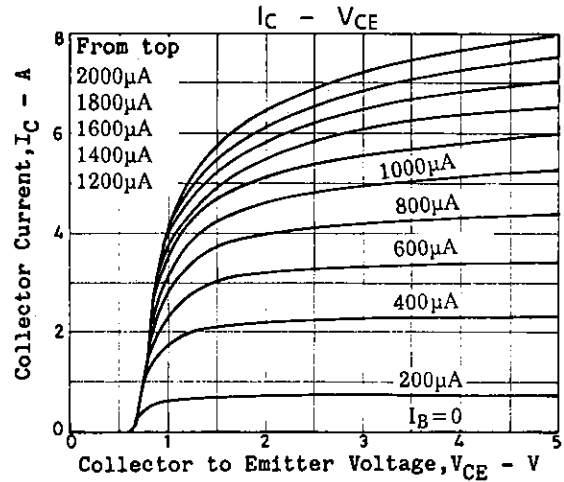
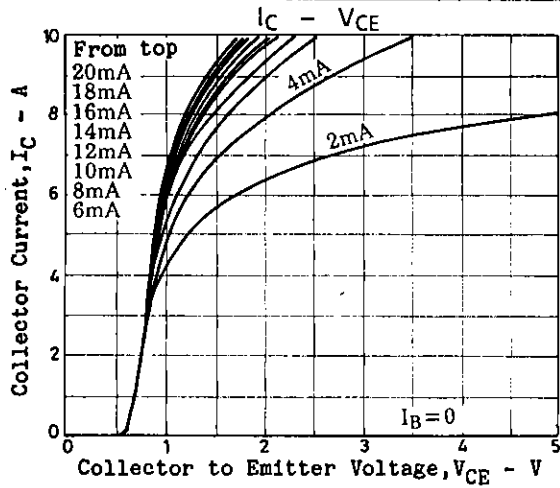


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