

2SC3285

Silicon PNP Triple-Diffused Planar Type

Power Switching

■ Features

- High speed switching
- High collector-base voltage (V_{CB0})
- Good linearity of DC current gain (h_{FE})

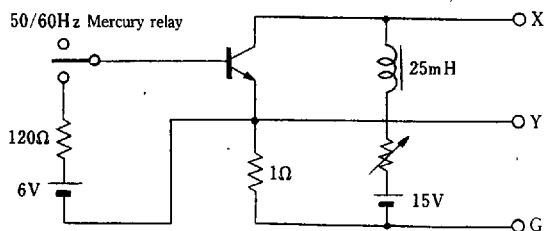
■ Absolute Maximum Ratings ($T_c=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	1000	V
Collector-emitter voltage	V_{CES}	1000	V
	V_{CEO}	800	V
Emitter-base voltage	V_{EB0}	7	V
Peak collector current	I_{CP}	6	A
Collector current	I_C	3	A
Base current	I_B	2	A
Collector power dissipation	P_C	70	W
		2.5	
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

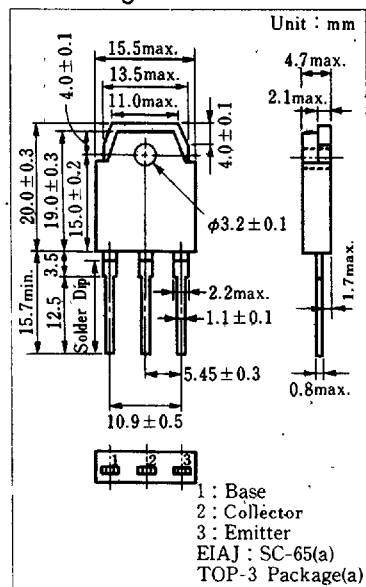
■ Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	$V_{CB}=1000\text{ V}, I_E=0$			50	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=7\text{ V}, I_C=0$			50	μA
Collector-emitter voltage	$V_{CEO(sus)}$	$I_C=0.5\text{ A}, L=50\text{ mH}$	800			V
DC current gain	h_{FE}	$V_{CE}=5\text{ V}, I_C=2\text{ A}$	6			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{ A}, I_B=0.4\text{ A}$			1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2\text{ A}, I_B=0.4\text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE}=5\text{ V}, I_C=0.2\text{ A}, f=1\text{ MHz}$		4		MHz
Turn-on time	t_{on}	$I_C=2\text{ A}, I_{B1}=0.4\text{ A}, I_{B2}=-0.8\text{ A}$ $V_{CC}=250\text{ V}$			1.0	μs
Storage time	t_{stg}				2.5	μs
Collector current fall time	t_f				0.5	μs

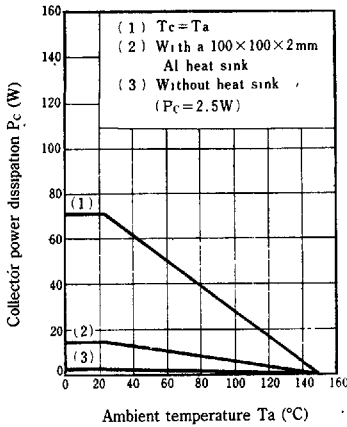
* $V_{CEO(sus)}$ Test method



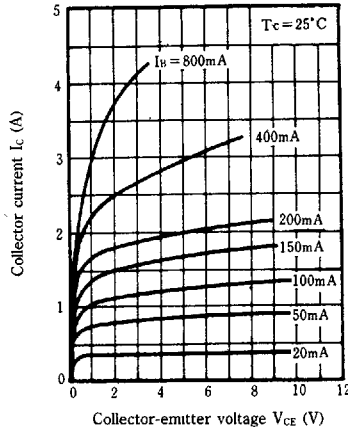
■ Package Dimensions



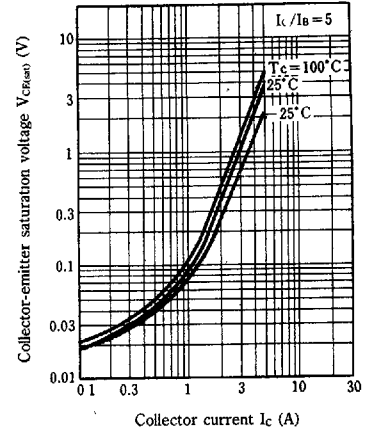
$P_C - T_a$



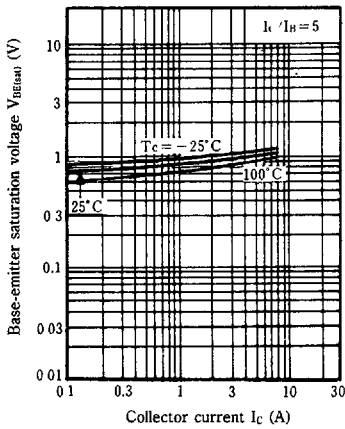
$I_C - V_{CE}$



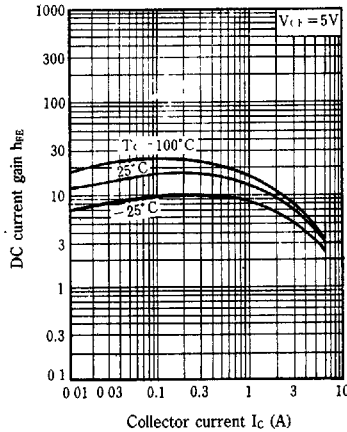
$V_{CE(sat)} - I_C$



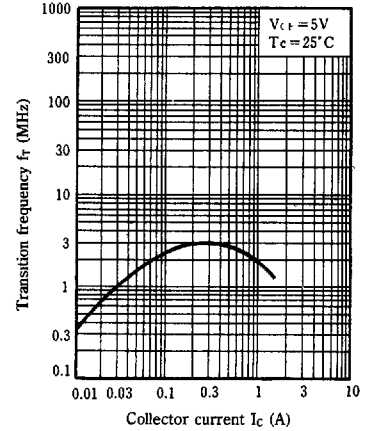
$V_{BE(sat)} - I_C$



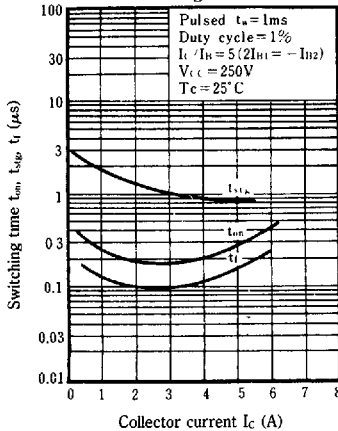
$h_{FE} - I_C$



$f_T - I_C$



$t_{on}, t_{stg}, t_f - I_C$



Area of safe operation (ASO)

