2SC3737

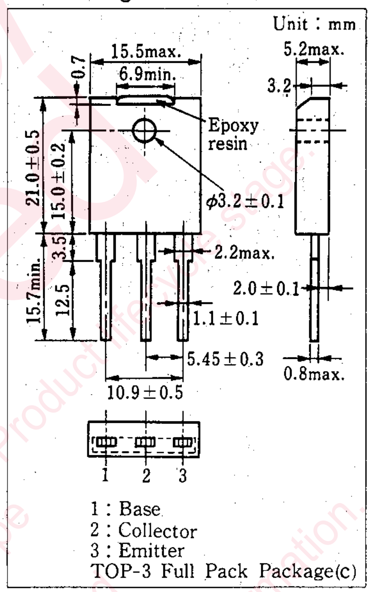
Silicon PNP Triple-Diffused Planar Type

High Speed Switching
Horizontal Deflection Output

■ Features

- High speed switching
- Wide area of safety operation and high breakdown voltage
- Good linearity of DC current gain (h_{FE})
- "Full Pack" package for simplified mounting on a heat sink with one screw

■ Package Dimensions



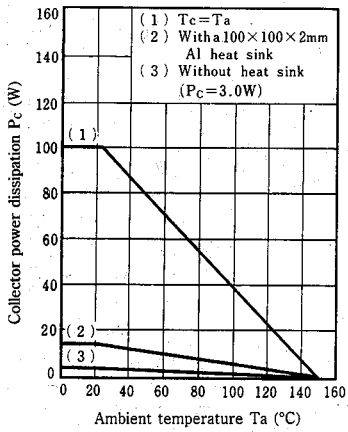
■ Absolute Maximum Ratings (T_C=25°C)

Item		Symbol	Value	Unit
Collector-base voltage		V_{CBO}	1200	V
Collector-emitter voltage		V_{CEO}	800	V
Emitter-base voltage		V_{EBO}	7	V
Peak collector current		I_{CP}	8	A
Collector current		I_C	5	A
Base current		I_B	3	A
Collector power dissipation	T_C=25℃	P_C	100	W
	T_a=25℃		3	
Junction temperature		T_j	150	℃
Storage temperature		T_{stg}	−55～+150	℃

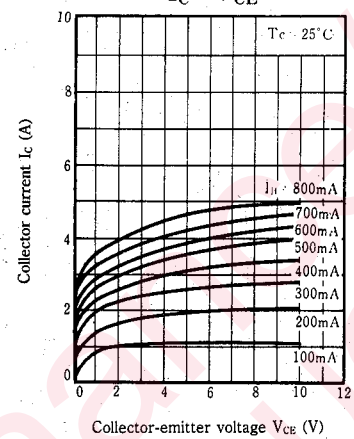
■ Electrical Characteristics (T_C=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	V_{CB}=1000 V, I_E=0			100	μA
Emitter cutoff current	I_{EBO}	V_{EB}=6 V, I_C=0			100	μA
Collector-emitter voltage	V_{CEO}	I_C=10 mA, I_B=0	800			V
DC current gain	h_{FE}	V_{CE}=5 V, I_C=2 A	6		20	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2 A, I_B=0.4 A			1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2 A, I_B=0.4 A			2	V
Turn-on time	t_{on}	I_C=2A			1	μs
Storage time	t_{stg}	I_{B1}=0.4A, I_{B2}=−0.8A			3.5	μs
Collector current fall time	t_f	V_{CC}=250V			0.3	μs
Transition frequency	f_T	V_{CE}=5V, I_C=0.5A, f=1MHz	15			MHz

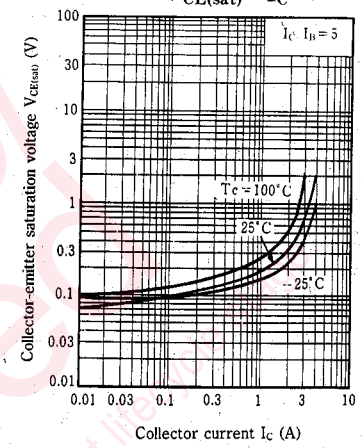
$P_C - Ta$



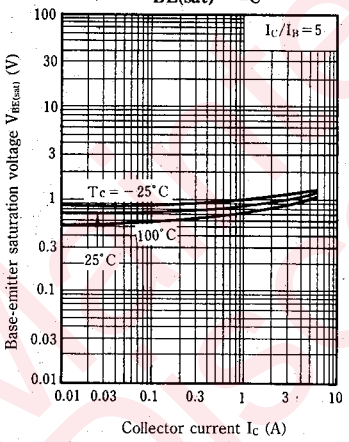
$I_C - V_{CE}$



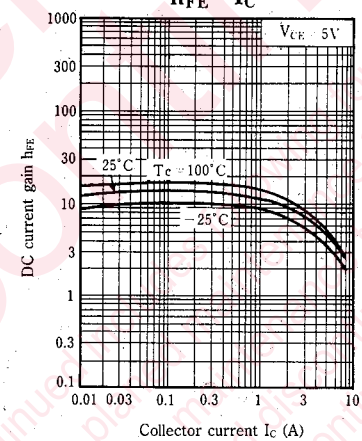
$V_{CE(sat)} - I_C$



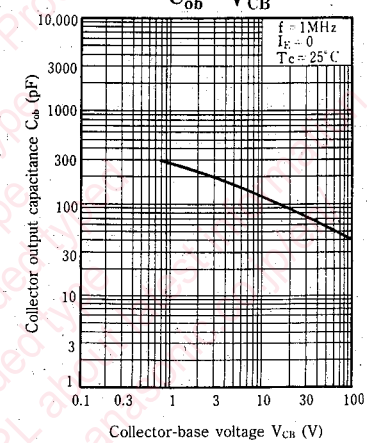
$V_{BE(sat)} - I_C$



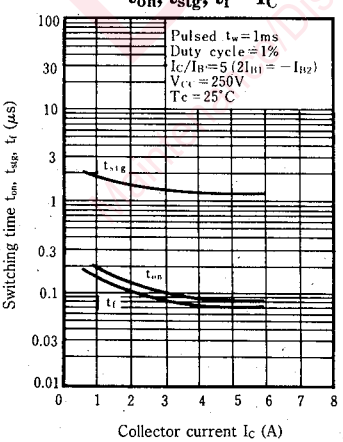
$h_{FE} - I_C$



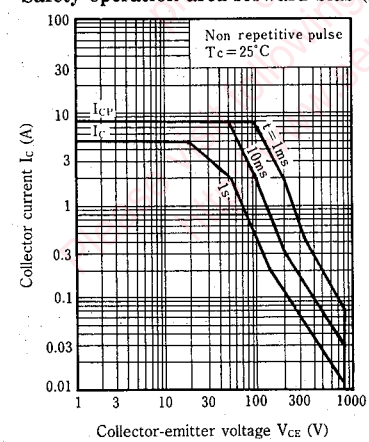
$C_{ob} - V_{CB}$



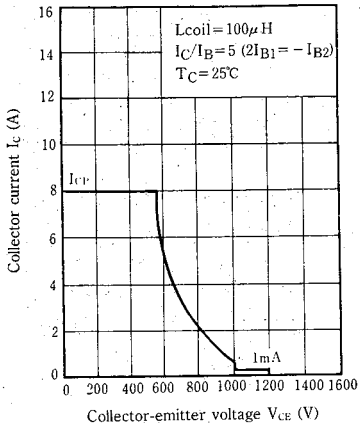
$t_{on}, t_{stg}, t_f - I_C$



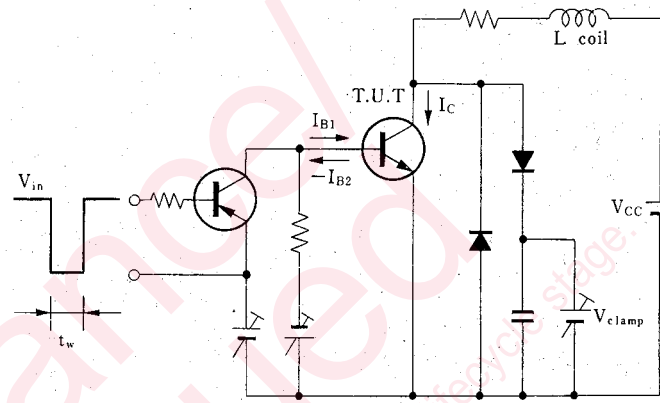
Safety operation area-forward bias (ASO)



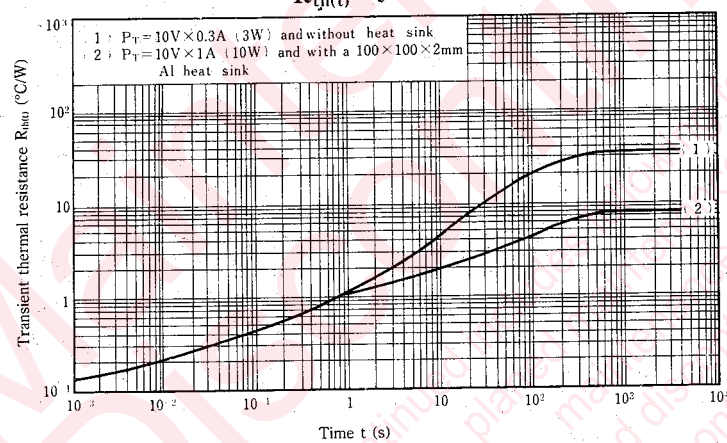
Safety operation area-reverse bias (ASO)



Measurement circuit of reverse bias ASO



$R_{th(t)}-t$



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