2SC3737

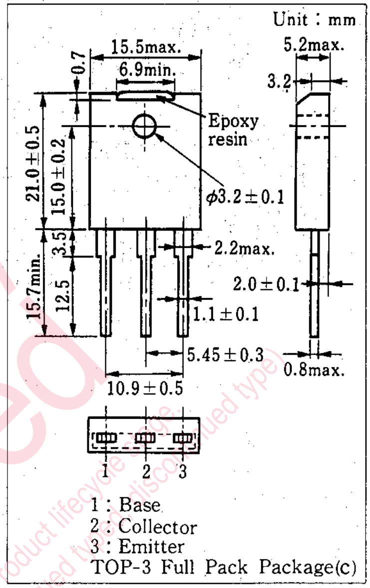
Silicon PNP Triple-Diffused Planar Type

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



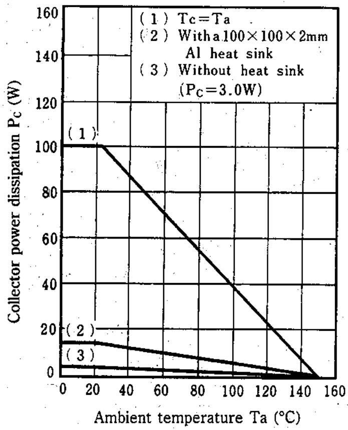
■ Absolute Maximum Ratings (Tc=25°C)

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	Tc=25℃	P_C	100	W
	Ta=25℃		3	
Junction temperature		T_j	150	℃
Storage temperature		T_{stg}	−55~+150	℃

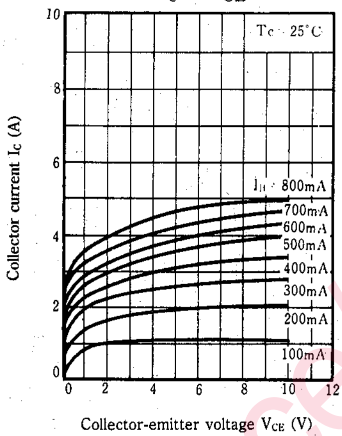
■ Electrical Characteristics (Tc=25°C)

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}	$I_C=2$A			1	μs
Storage time	t_{stg}	$I_{B1}=0.4$A, $I_{B2}=-0.8$A			3.5	μs
Collector current fall time	t_f	$V_{CC}=250$V			0.3	μs
Transition frequency	f_T	$V_{CE}=5$V, $I_C=0.5$A, f=1MHz	15			MHz

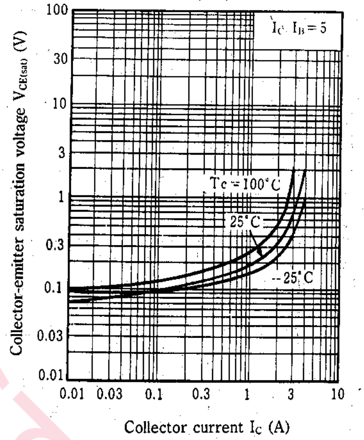
P_C — Ta



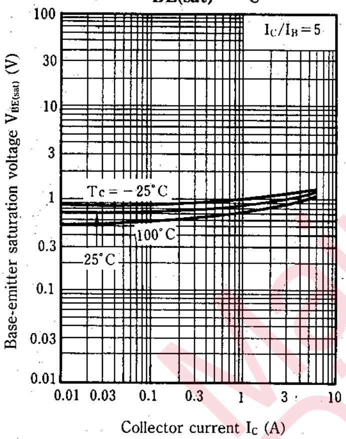
I_C — V_{CE}



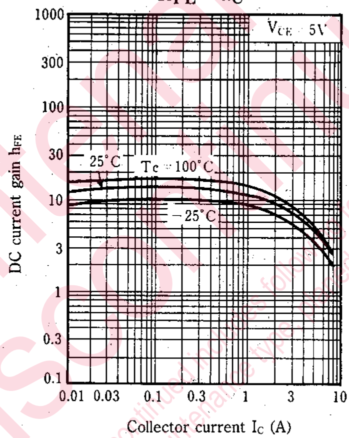
$V_{CE(sat)}$ — I_C



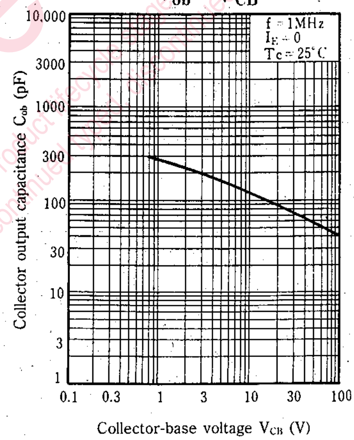
$V_{BE(sat)}$ — I_C



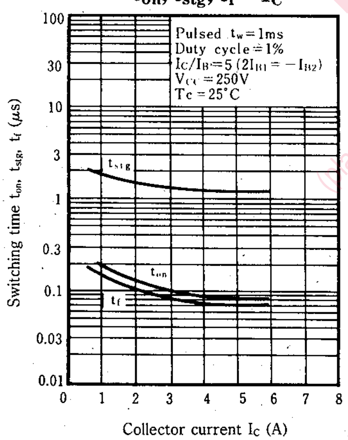
h_{FE} — I_C



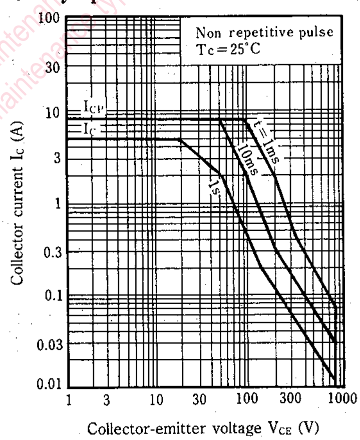
C_{ob} — V_{CB}



t_{on}, t_{stg}, t_f — I_C

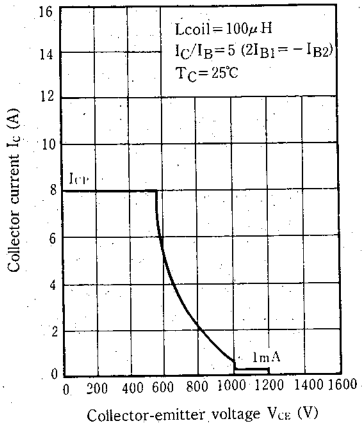


Safety operation area-forward bias (ASO)

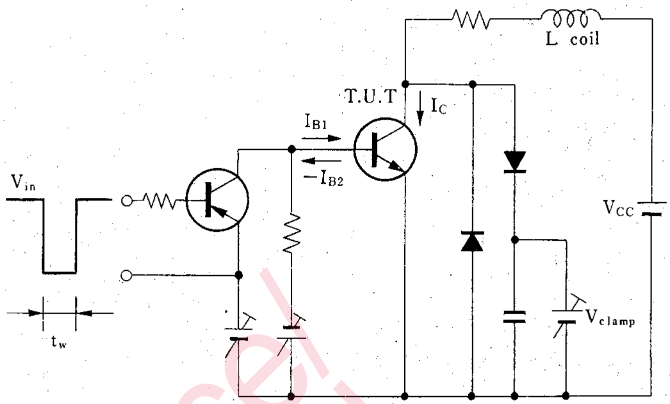


Panasonic

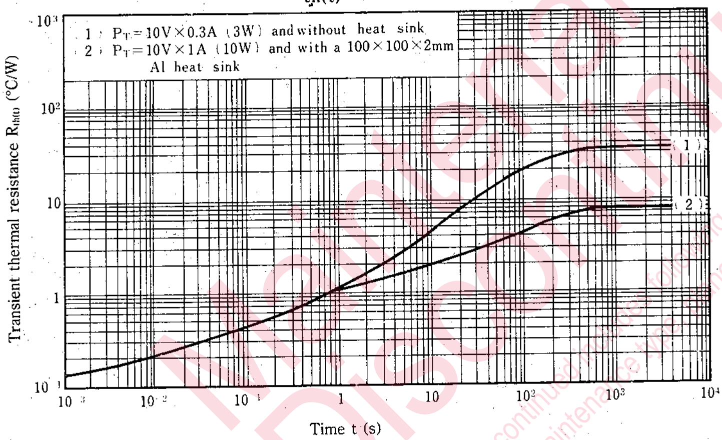
Safety operation area-reverse bias (ASO)



Measurement circuit of reverse bias ASO



$R_{th(t)}-t$



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