

2SD1845

Silicon NPN Triple-Diffused Planar Type

Horizontal Deflection Output

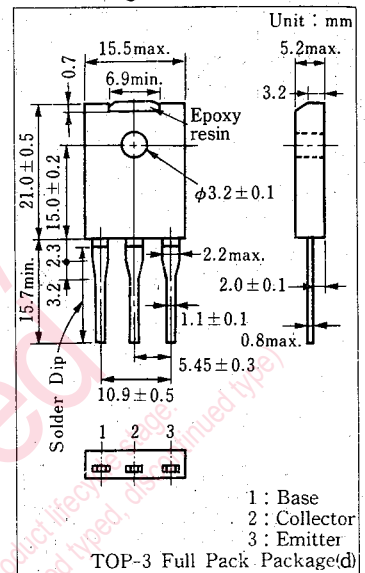
■ Features

- Damper diode built-in
- Minimizes external component counts and simplifies circuitry
- High breakdown voltage, high reliability
- High speed switching
- Wide area of safety operation (ASO)
- "Full Pack" package for simplified mounting on a heat sink with one screw

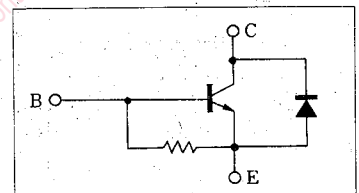
■ Absolute Maximum Ratings (T_c=25°C)

Item	Symbol	Value	Unit	
Collector-base voltage	V _{CBO}	1500	V	
Collector-emitter voltage	V _{CES}	1500	V	
	V _{CEO}	700	V	
Emitter-base voltage	V _{EBO}	7	V	
Peak collector current	I _{CP}	7	A	
Collector current	I _C	2.5	A	
Base current	I _B	1.5	A	
Collector power dissipation	P _C	T _C =25°C	60	W
		T _a =25°C	3	
Junction temperature	T _j	150	°C	
Storage temperature	T _{stg}	-55 ~ +150	°C	

■ Package Dimensions



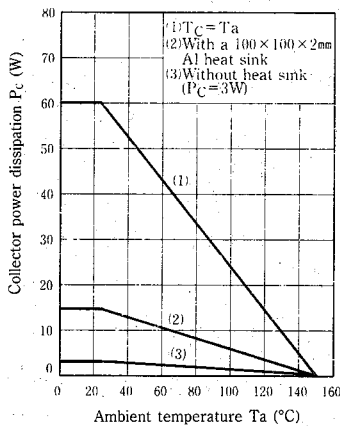
■ Inner Circuit



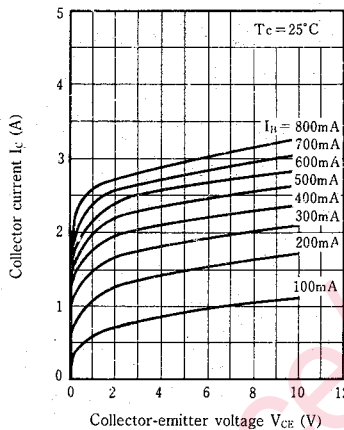
■ Electrical Characteristics (T_c=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I _{CBO}	V _{CB} =750V, I _E =0			10	μA
		V _{CB} =1500V, I _E =0			1	mA
Emitter-base voltage	V _{EBO}	I _E =500mA, I _C =0	7			V
DC current gain	h _{FE}	V _{CE} =5V, I _C =0.5A	5		25	
		V _{CE} =10V, I _C =2A	3.5			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =2A, I _B =0.6A			8	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =2A, I _B =0.6A			1.5	V
Transition frequency	f _T	V _{CE} =10V, I _C =0.5A, f=0.5MHz		2		MHz
Storage time (L load)	t _{stg}	I _C =2A, I _{B1} =0.6A			7	μs
Collector current fall time (L load)	t _f	I _{B2} =-0.6A, L _{leak} =5μH			0.8	μs
Storage time (R load)	t _{stg}	I _C =2A, I _{B1} =0.6A		1.5		μs
Collector current fall time (R load)	t _f	I _{B2} =-1.2A, V _{CC} =200V		0.2		μs
Diode forward voltage	V _F	I _C =-2.5A, I _B =0			2	V

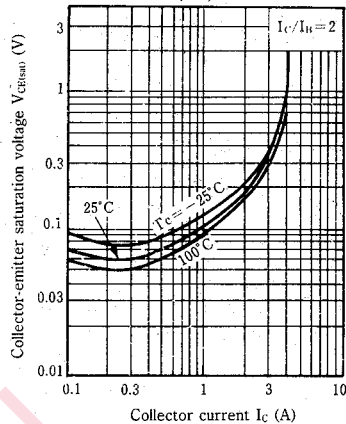
$P_c - T_a$



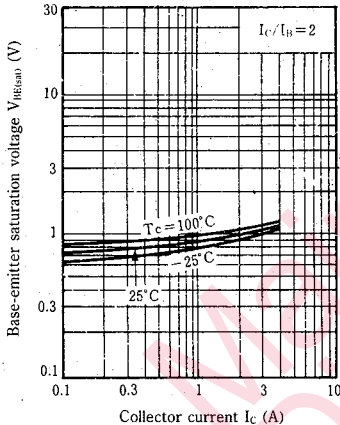
$I_c - V_{CE}$



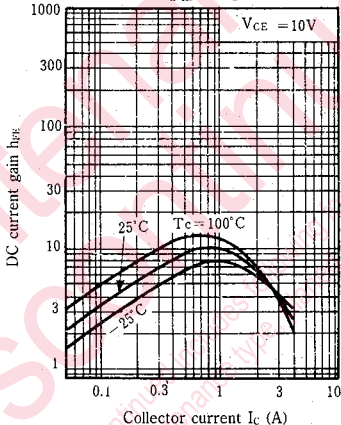
$V_{CE(sat)} - I_c$



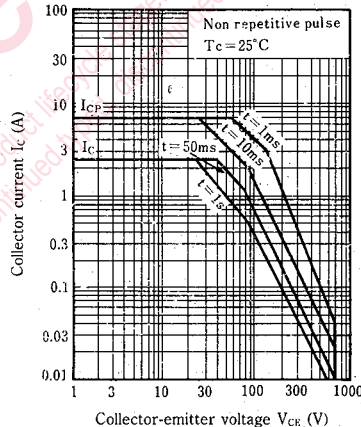
$V_{BE(sat)} - I_c$



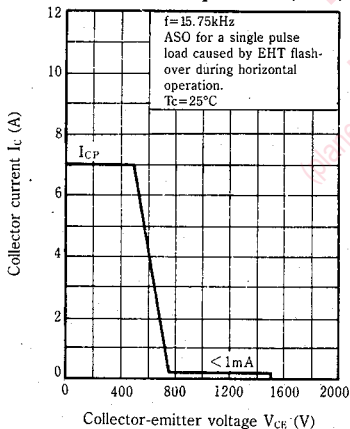
$h_{FE} - I_c$



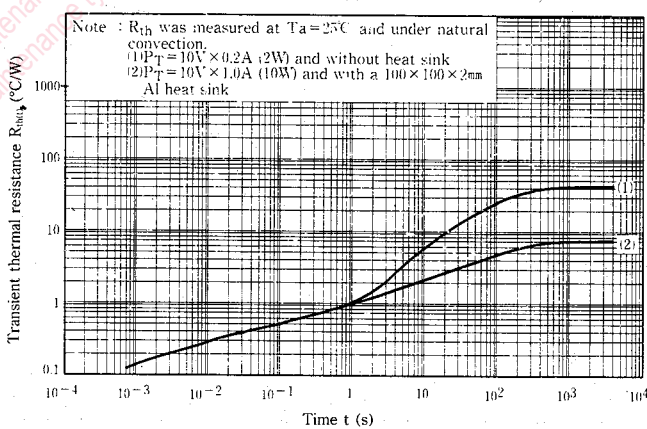
Area of safe operation (ASO)



Area of safe operation (ASO)



$R_{th(t)} - t$



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