

2SD1847

Silicon NPN Triple-Diffused Planar Type

Horizontal Deflection Output

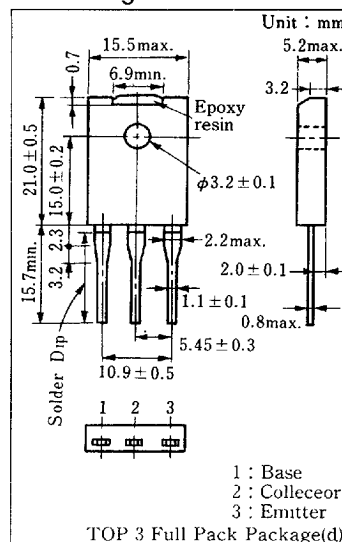
■ Features

- 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

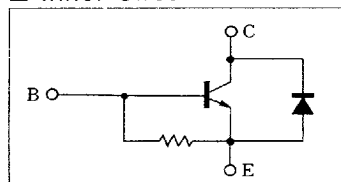
■ Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	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}	15	A
Collector current	I_C	5	A
Base current	I_B	2	A
Collector power dissipation	P_C	100	W
		3	
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

■ Package Dimensions

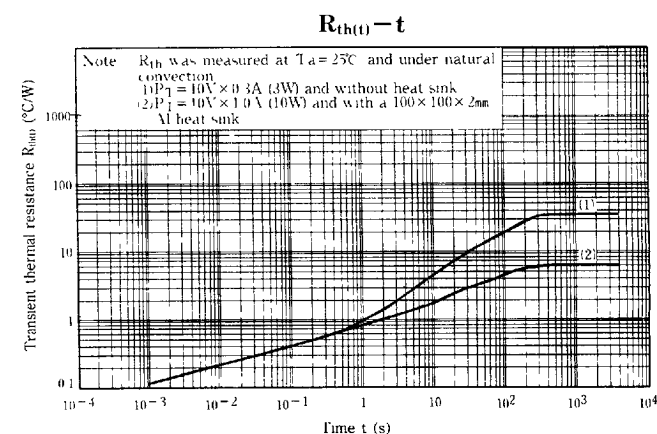
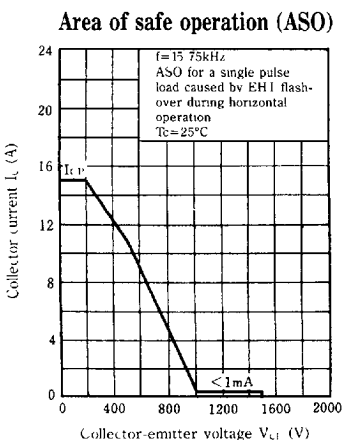
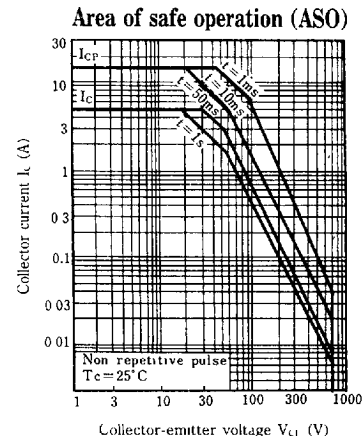
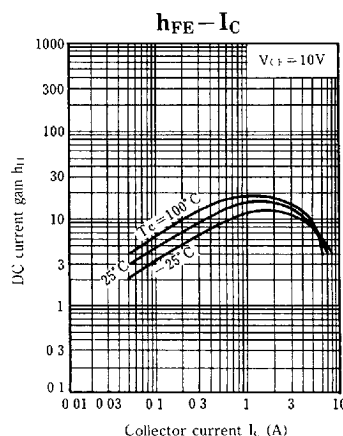
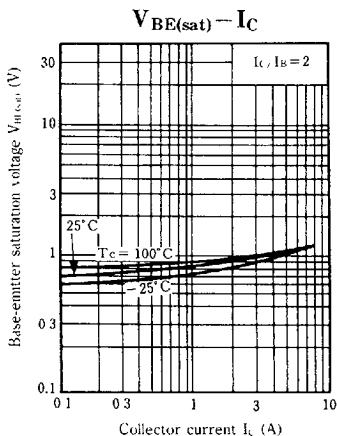
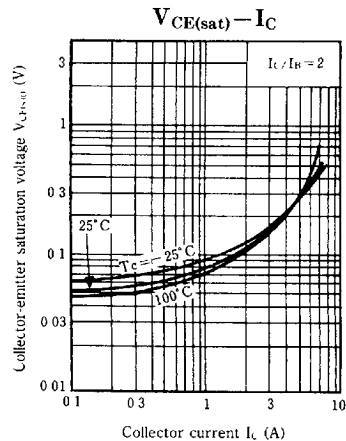
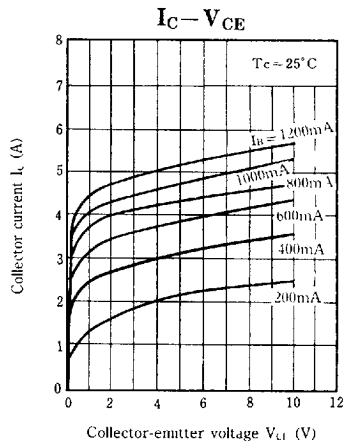
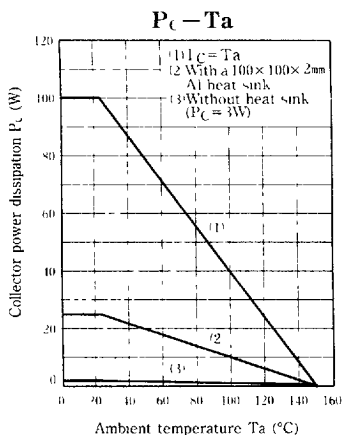


■ Inner Circuit



■ Electrical Characteristics (Tc=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}	$V_{CE} = 5V, I_C = 1A$	5		25	
		$V_{CE} = 10V, I_C = 4A$	4			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 1A$			8	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 1A$			1.5	V
Transition frequency	f_T	$V_{CE} = 10V, I_C = 1A, f = 0.5MHz$		2		MHz
Storage time (L load)	t_{stg}	$I_C = 4A, I_{B1} = 1A$			9	μs
Collector current fall time (L load)	t_f	$I_{B2} = -1A, L_{leak} = 5\mu H$			0.8	μs
Storage time (R load)	t_{stg}	$I_C = 4A, I_{B1} = 1A$		1.5		μs
Collector current fall time (R load)	t_f	$I_{B2} = -2A, V_{CC} = 200V$		0.2		μs
Diode forward voltage	V_F	$I_C = -5A, I_B = 0$			2.3	V



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