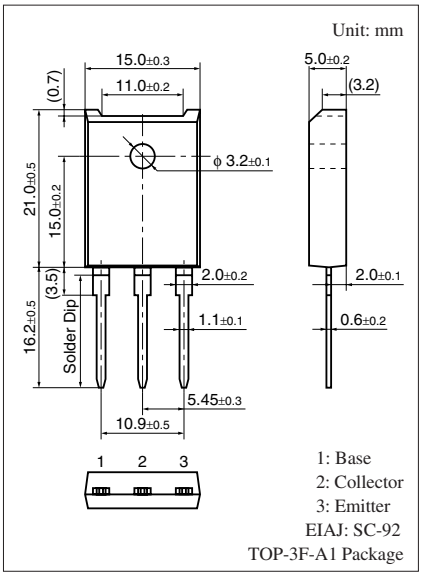
2SC4359

Silicon NPN triple diffusion planar type

For high breakdown voltage high-speed switching



■ Features

- High-speed switching
- High collector-base voltage (Emitter open) V_{CBO}
- Wide safe oeration area
- Satisfactory linearity of forward current transfer ratio h_{FE}

■ Absolute Maximum Ratings $T_C = 25°C$

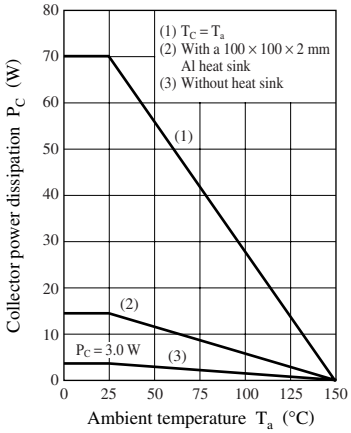
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	900	V
Collector-emitter voltage (E-B short)	V_{CES}	900	V
Collector-emitter voltage (Base open)	V_{CEO}	800	V
Emitter-base voltage (Collector open)	V_{EBO}	7	V
Base current	I_B	1	A
Collector current	I_C	3	A
Peak collector current	I_{CP}	5	A
Collector power dissipation	P_C	70	W
$T_a = 25°C$		3.0	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_C = 25°C \pm 2°C$

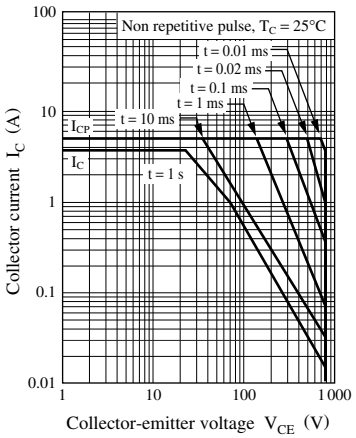
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	I_C = 10 mA, I_B = 0	800			V
Collector-base cutoff current (Emitter open)	I_{CBO}	V_{CB} = 900 V, I_E = 0			50	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	V_{EB} = 7 V, I_C = 0			50	μA
Forward current transfer ratio	h_{FE1}	V_{CE} = 5 V, I_C = 0.1 A	8			—
	h_{FE2}	V_{CE} = 5 V, I_C = 0.8 A	6			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 0.8 A, I_B = 0.16 A			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 0.8 A, I_B = 0.16 A			1.2	V
Transition frequency	f_T	V_{CE} = 5 V, I_C = 0.15 A, f = 1 MHz		10		MHz
Turn-on time	t_{on}	I_C = 0.8 A			0.7	μs
Storage time	t_{stg}	I_{B1} = 0.16 A, I_{B2} = − 0.32 A			2.5	μs
Fall time	t_f	V_{CC} = 250 V			0.3	μs

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

P_C — T_a



Safe operation area



This product complies with the RoHS Directive (EU 2002/95/EC).

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