

2SD1439

Silicon NPN Triple-Diffused Junction Mesa Type

Horizontal Deflection Output

■ Features

- Damper diode built-in
- High breakdown voltage and high reliability by glass passivation
- High speed switching
- Wide area of safety operation (ASO)

■ Absolute Maximum Ratings (Tc=25°C)

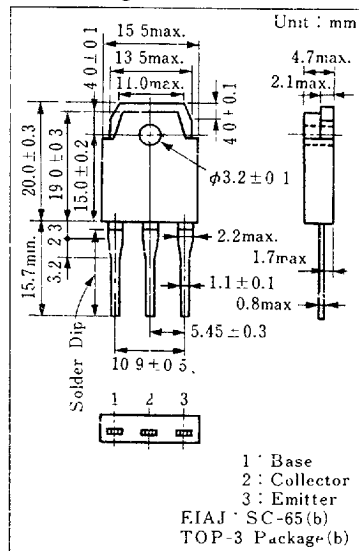
Item	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	1500	V
Collector-emitter voltage	V_{CEs}	1500	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	3	A
Peak collector current	I_{CP}^*	10	A
Peak base current	I_{BP}	3.5	A
Reverse peak base current	I_{BRP}	-2.5	A
Collector power dissipation	P_C	$T_c = 25^\circ\text{C}$	W
		$T_a = 25^\circ\text{C}$	
Junction temperature	T_j	130	°C
Storage temperature	T_{stg}	-55 ~ +130	°C

* Non repetitive peak value

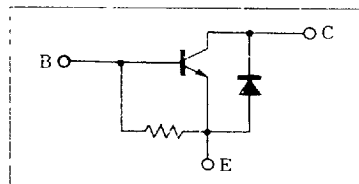
■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current'	I_{CBO}	$V_{CB} = 750\text{ V}, I_L = 0$			50	μA
		$V_{CB} = 1500\text{ V}, I_F = 0$			1	mA
Emitter-base voltage	V_{EBO}	$I_F = 500\text{ mA}, I_C = 0$	5			V
DC current gain	h_{FE}	$V_{CE} = 10\text{ V}, I_C = 2\text{ A}$	4		12	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2\text{ A}, I_B = 0.75\text{ A}$			5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2\text{ A}, I_B = 0.75\text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE} = 10\text{ V}, I_C = 0.5\text{ A}, f = 0.5\text{ MHz}$		2		MHz
Fall time	t_f	$I_C = 2\text{ A}, I_{Bend} = 0.75\text{ A}$			0.75	μs
Storage time	t_{stg}	$L_{leak} = 5\mu\text{H}$	3		7	μs
Diode forward voltage	V_F	$V_{CE} = 10\text{ V}, I_C = 0.5\text{ A}, f = 0.5\text{ MHz}$			-2.2	V

■ Package Dimensions



■ Inner Circuit



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