

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)

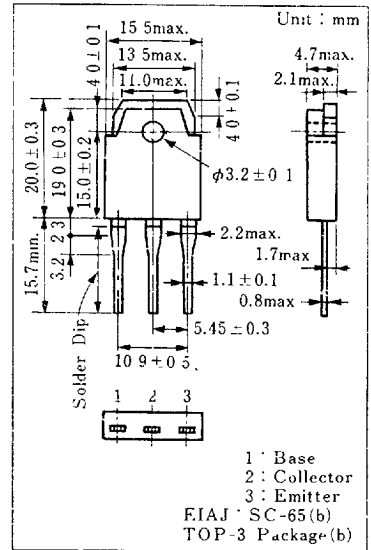
Item	Symbol	Value	Unit	
Collector-base voltage	V_{CB0}	1500	V	
Collector-emitter voltage	V_{CEs}	1500	V	
Emitter-base voltage	V_{EB0}	5	V	
Collector current	I_C	3	A	
Peak collector current	I_{CP}^*	10	A	
Peak base current	I_{BP}	3.5	A	
Reverse peak base current	I_{BP}	-2.5	A	
Collector power dissipation	P_C	Tc = 25°C	50	W
		Ta = 25°C	2.5	
Junction temperature	T_J	130	°C	
Storage temperature	T_{stg}	-55 ~ +130	°C	

* Non repetitive peak value

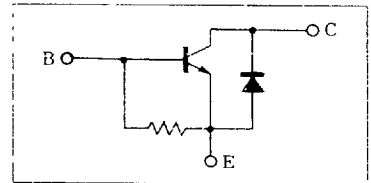
■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current'	I_{CB0}	$V_{CB} = 750 \text{ V}, I_L = 0$			50	μA
		$V_{CB} = 1500 \text{ V}, I_F = 0$			1	mA
Emitter-base voltage	V_{EB0}	$I_F = 500 \text{ mA}, I_C = 0$	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



■ 6932852 0016716 T01 ■

