

# 2SD1441

## 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 (T<sub>c</sub>=25°C)

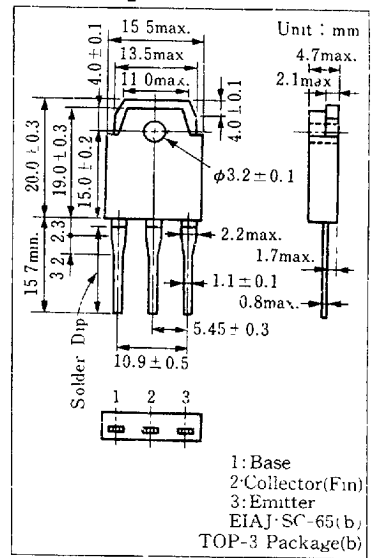
Item	Symbol	Value	Unit
Collector-base voltage	V <sub>CB0</sub>	1500	V
Collector-emitter voltage	V <sub>CE0</sub>	1500	V
Emitter-base voltage	V <sub>EB0</sub>	5	V
Collector current	I <sub>C</sub>	4	A
Peak collector current	I <sub>CP</sub> *	15	A
Peak base current	I <sub>BP</sub>	3.5	A
Reverse peak base current	I <sub>BRP</sub>	-2.5	A
Collector power dissipation	P <sub>C</sub>	T <sub>c</sub> =25°C	70
		T <sub>a</sub> =25°C	2.5
Junction temperature	T <sub>j</sub>	130	°C
Storage temperature	T <sub>stg</sub>	-55 ~ +130	°C

\* Non repetitive peak value

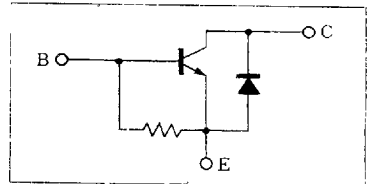
#### ■ Electrical Characteristics (T<sub>c</sub>=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> =750 V, I <sub>F</sub> =0			50	μA
		V <sub>CB</sub> =1500 V, I <sub>F</sub> =0			1	mA
Emitter-base voltage	V <sub>EB0</sub>	I <sub>E</sub> =500 mA, I <sub>C</sub> =0	5			V
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =10 V, I <sub>C</sub> =3 A	5		15	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =3 A, I <sub>B</sub> =1 A			1	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =3 A, I <sub>B</sub> =1 A			1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.5A, f=0.5MHz		2		MHz
Fall time	t <sub>f</sub>	I <sub>C</sub> =3A, I <sub>Bend</sub> =1A			0.75	μs
Storage time	t <sub>stg</sub>	L <sub>trsk</sub> =5μH	4		9	μs
Diode forward voltage	V <sub>F</sub>	I <sub>C</sub> =-4A, I <sub>B</sub> =0			-2.2	V

#### ■ Package Dimensions



#### ■ Inner Circuit



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