

# 2SD1541

## Silicon NPN Triple-Diffused Junction Mesa Type

### Horizontal Deflection Output

#### ■ Features

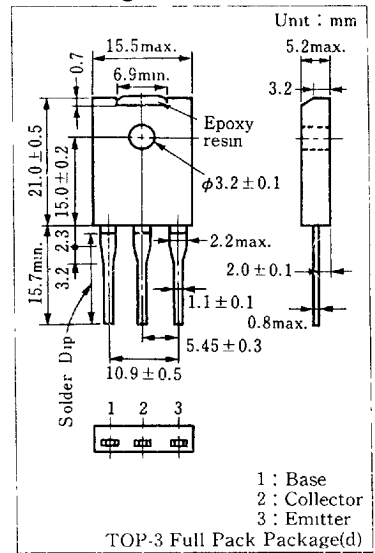
- Damper diode built-in
- High breakdown voltage and high reliability by glass passivation
- High speed switching
- Wide area of safety operation (ASO)
- "Full Pack" package for simplified mounting on a heat sink with one screw

#### ■ Absolute Maximum Ratings (Tc=25°C)

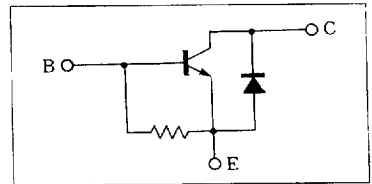
Item	Symbol	Value	Unit
Collector-base voltage	V <sub>CB0</sub>	1500	V
Collector-emitter voltage	V <sub>CES</sub>	1500	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	3	A
Peak collector current	I <sub>CP</sub> *	10	A
Peak base current	I <sub>BP</sub>	3.5	A
Reverse peak base current	I <sub>BP</sub>	-2.5	A
Collector power dissipation	P <sub>C</sub>	50	W
Junction temperature	T <sub>J</sub>	130	°C
Storage temperature	T <sub>str</sub>	-55 ~ +130	°C

\* Non repetitive peak value

#### ■ Package Dimensions



#### ■ Inner Circuit



#### ■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> =750 V, I <sub>E</sub> =0			50	μA
		V <sub>CB</sub> =1500 V, I <sub>E</sub> =0			1	mA
Emitter-base voltage	V <sub>EBO</sub>	I <sub>E</sub> =500 mA, I <sub>C</sub> =0	5			V
DC current gain	h <sub>FF</sub>	V <sub>CE</sub> =10 V, I <sub>C</sub> =2 A	4		12	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =2 A, I <sub>B</sub> =0.75 A			5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =2 A, I <sub>B</sub> =0.75 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> =2 A, I <sub>Bend</sub> =0.75 A			0.75	μs
Storage time	t <sub>stg</sub>	L <sub>leak</sub> =5 μH	3		7	μs
Diode forward voltage	V <sub>F</sub>	I <sub>C</sub> =-4 A, I <sub>B</sub> =0			-2.2	V

6932852 0016764 764

