



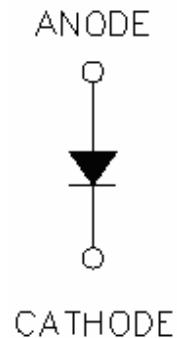
## ST1545AX SCHOTTKY RECTIFIER

### Applications:

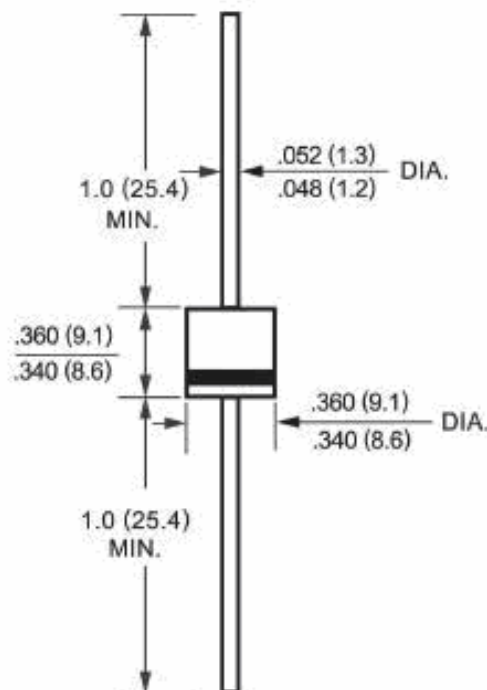
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

### Features:

- 200 °C T<sub>J</sub> operation
- Center tap configuration
- Ultralow forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

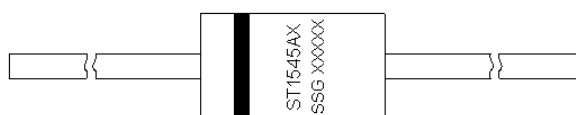


### Mechanical Dimensions: In Inches / mm



R-6

**Marking Diagram:**



Where XXXXX is YYWWL

- S = Device Type
- T = Ultralow VF
- 15 = Forward Current (15A)
- 45 = Reverse Voltage (45V)
- AX = Package type
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
ST1545AX	R-6 (Pb-Free)	500pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	45	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @ $T_C=75\text{ }^\circ\text{C}$ rectangular wave form	15	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3 ms, half Sine pulse	200	A



**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	V <sub>F1</sub>	@ 15A, Pulse, T <sub>J</sub> = 25 °C	0.59	V
	V <sub>F2</sub>	@ 15A, Pulse, T <sub>J</sub> = 125 °C	0.54	V
Max. Reverse Current(per leg)	I <sub>R1</sub>	@ V <sub>R</sub> = rated V <sub>R</sub> T <sub>J</sub> = 25 °C	0.8	mA
Max. Reverse Current (per leg) *	I <sub>R2</sub>	@ V <sub>R</sub> = rated V <sub>R</sub> T <sub>J</sub> = 125 °C	25	mA
Max. Junction Capacitance (per leg)	C <sub>T</sub>	@ V <sub>R</sub> = 5V, T <sub>C</sub> = 25 °C f <sub>SIG</sub> = 1MHz	1000	pF
Max. Voltage Rate of Change	dv/dt	-	10,000	V/μs

\* Pulse Width < 300μs, Duty Cycle <2%

**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T <sub>J</sub>	-	-55 to +200	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-55 to +200	°C
Maximum Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	DC operation	55	°C/W
Approximate Weight	wt	-	2.24	g
Case Style	R-6			



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