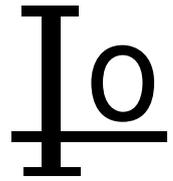


SR1545L

LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 45 Volts Forward Current - 15.0Amperes

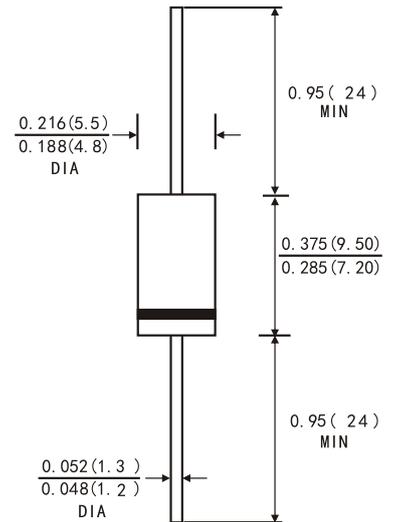


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU and WEEE 2012/19/EU



DO-201AD



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041ounce, 1.15 grams

TYPICAL APPLICATIONS

For use in low voltage ,high frequency inverters ,DC/DC converters, free wheeling ,and polarity protection applications

MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified)

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	15.0A
V_{RRM}	45V
I_{FSM}	150A
V_F at $I_F=15.0A$	0.38V
T_{JMAX}	150°C

Parameter	Symbol	SR1545L	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{F(AV)}$	15.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	150	A
Operating junction temperature range	T_J	-55 to+150	°C
Storage temperature range	T_{stg}	-55 to+150	°C

RATINGS AND CHARACTERISTIC OF SR1545L

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ Unless otherwise noted)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instaneous forward voltage	IF=15.0A	$T_A=25^\circ\text{C}$	V_F ¹⁾	0.46	0.52	V
		$T_A=100^\circ\text{C}$		0.40	–	
		$T_A=125^\circ\text{C}$		0.38	–	
Reverse current	VR=45V	$T_A=25^\circ\text{C}$	I_R ²⁾	100	200	μA
		$T_A=100^\circ\text{C}$		8	15	mA
		$T_A=125^\circ\text{C}$		20	50	
Typical junction capacitance	4V, 1MHz		C_J	570		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width \leq 40ms

THERMAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ Unless otherwise noted)

Parameter	Symbol	SR1545L	Unit
Typical thermal resistance ³⁾	$R_{\theta JA}$ ⁴⁾	25.0	$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	8.0	

RATINGS AND CHARACTERISTIC OF SR1545L

FIG.1-FORWARD CURRENT DERATING CURVE

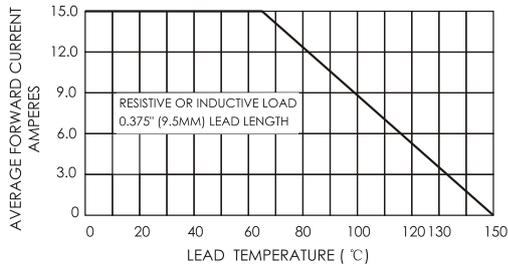


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

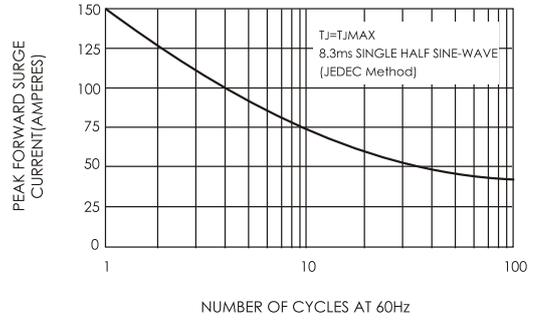


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

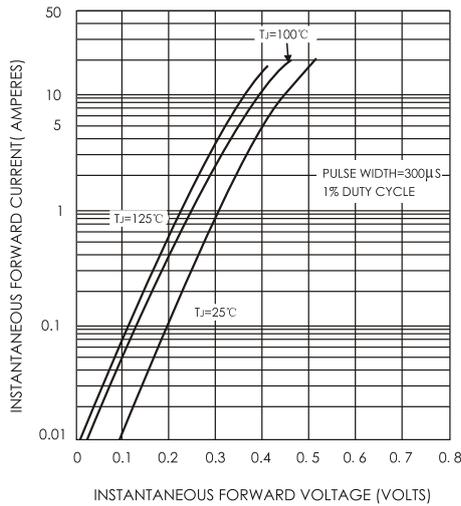


FIG.4-TYPICAL REVERSE CHARACTERISTICS

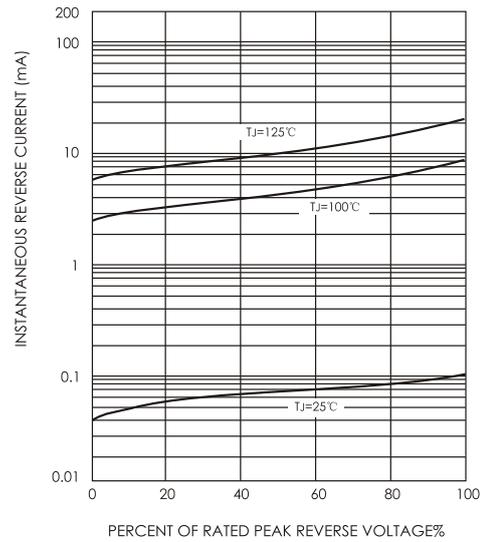


FIG.5-TYPICAL JUNCTION CAPACITANCE

