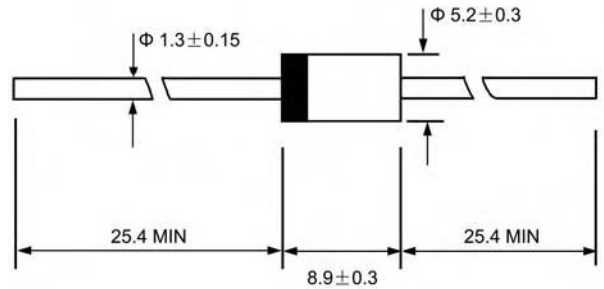


## Features

- ◇ Metal-semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop, low switching losses
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

## Mechanical Data

- ◇ Case: JEDEC DO-201AD/DO--27, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

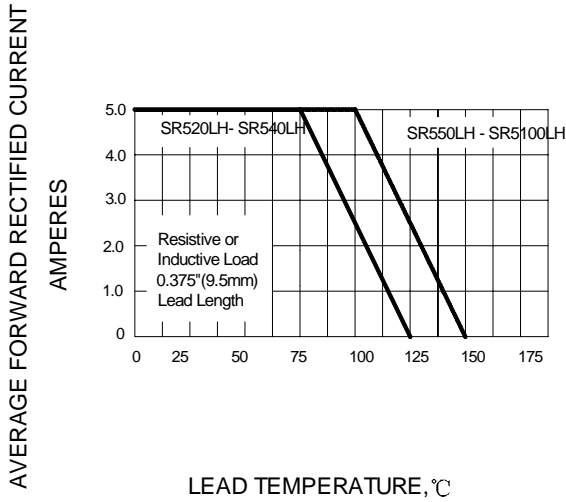
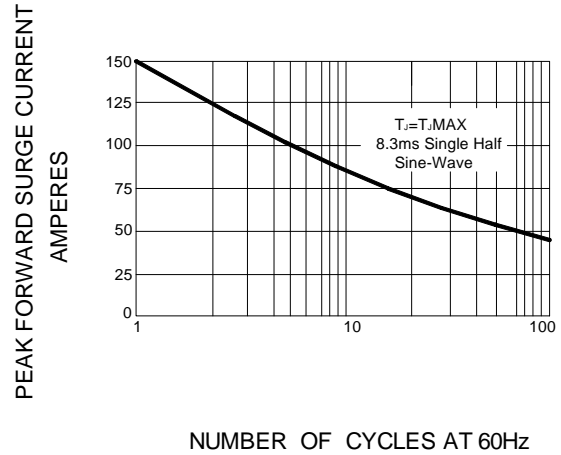
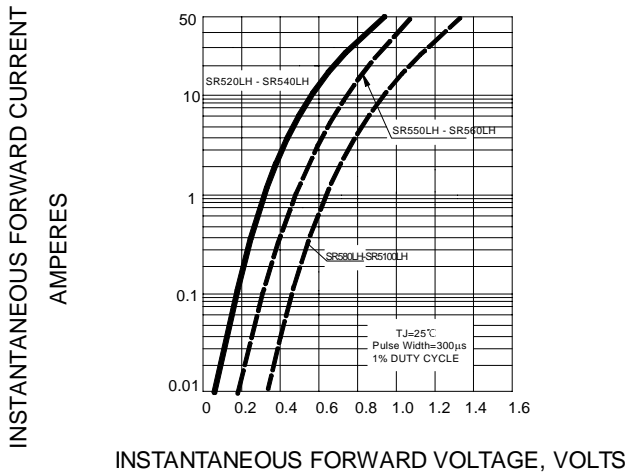
		SR520LH	SR530LH	SR540LH	SR550LH	R560LH	SR580LH	SR5100LH	UNITS	
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V	
Maximum average forward rectified current 9.5mm lead length, (see fig.1)	$I_{F(AV)}$	5.0							A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	150.0							A	
Maximum instantaneous forward voltage @ 5.0A (Note 1)	$V_{F(25^\circ\text{C})}$	0.45			0.60		0.65		V	
	$V_{F(125^\circ\text{C})}$	0.36			0.50		0.60			
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	2.5							mA	
		50.0				25.0				
Typical junction capacitance (Note2)	$C_J$	500				400			pF	
Typical thermal resistance (Note3)	$R_{\theta JA}$	25							$^\circ\text{C/W}$	
Operating junction temperature range	$T_J$	- 55 ---- + 125				- 55 ---- + 150				$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- +150							$^\circ\text{C}$	

NOTE: 1. Pulse test: 300us pulse width, 1% duty cycle.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient

## Ratings AND Characteristic Curves

**FIG.1 -- FORWARD CURRENT DERATING CURVE**

**FIG.2 -- PEAK FORWARD SURGE CURRENT**

**FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**
