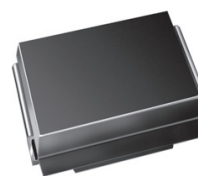


Features

- Low profile package
- Ideal for automated placement
- Low power loss, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Meets MSL level 1, per J-STD-020
- Component in accordance to
RoHS 2011/65/EU and WEEE 2002/96/EC
- AEC-Q101 Qualified and PPAP Capable



DO-214AA (SMB)



RoHS
COMPLIANT

HALOGEN
FREE
Available

Major Ratings and Characteristics

$I_{F(AV)}$	5.0A
V_{RRM}	20 V to 200 V
I_{FSM}	150A
V_F	0.50V, 0.55V, 0.70V, 0.85V, 0.95V
$T_{jmax.}$	125 °C, 150°C

Mechanical Data

- Case: JEDEC DO-214AA (SMB)
Molding compound meets
UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
MIL-STD-750, Method 2026
- **Polarity:** Laser band denotes cathode end

Maximum Ratings & Thermal Characteristics ($T_A = 25\text{ °C}$ unless otherwise noted)

Characteristic	Symbol	S-SS52B	S-SS53B	S-SS54B	S-SS55B	S-SS56B	S-SS58B	S-SS10B	S-SS15B	S-SS20B	Unit	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V	
Maximum average forward rectified current at T_L (see Fig1.)	$I_{F(AV)}$	5									A	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150									A	
Thermal resistance from junction to lead ⁽¹⁾	$R_{\theta JL}$	20									°C/W	
Operating junction temperature range	T_J	-65 to +125					-65 to +150					°C
Storage temperature range	T_{STG}	-65 to +150									°C	

Note 1: Mounted on P.C.B. with 0.28x0.28" (7.0 x 7.0mm) copper pad areas.

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	S-SS52B	S-SS53-54B	S-SS55-56B	S-SS58-510B	S-SS515-520B	Unit	
Instantaneous forward voltage	$I_F=5.0\text{A}^{(2)}$	V_F	0.50	0.55	0.70	0.85	0.95	V	
Reverse current	$V_R=V_{DC}$	I_R	$T_A=25^\circ\text{C}$				0.5		mA
			$T_A=100^\circ\text{C}$				10.0		

Note 2: Pulse test:300 μs pulse width,1% duty cycle

Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

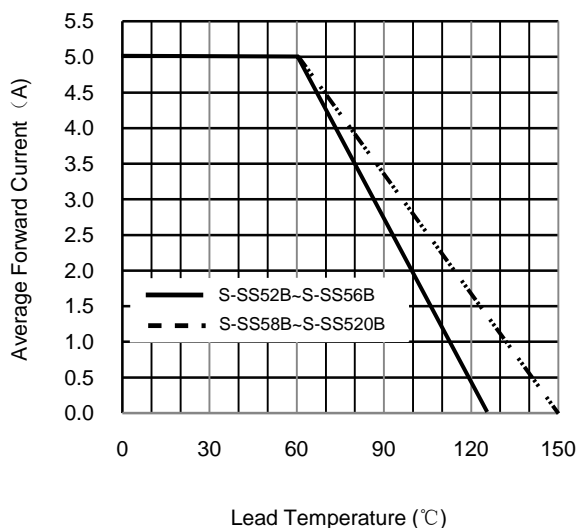


Fig.2 Maximum Non-repetitive Peak Forward Surge Current

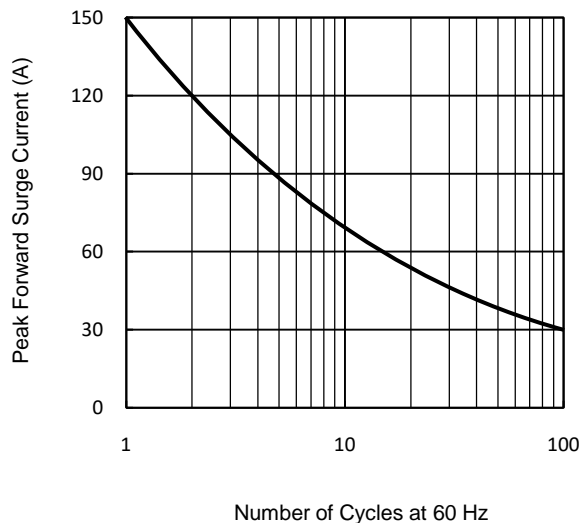


Fig.3 Typical Instantaneous Forward Characteristics

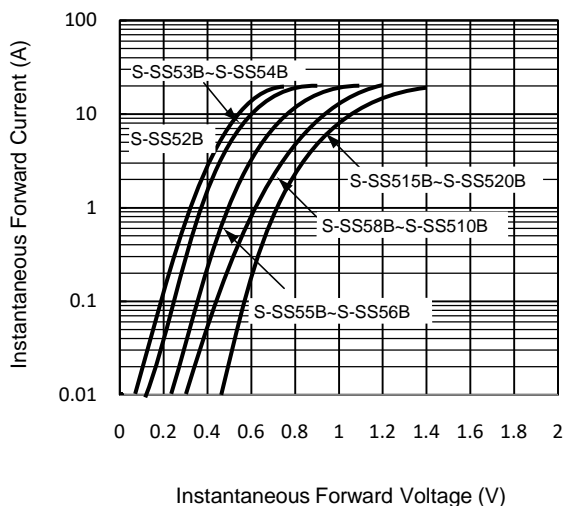
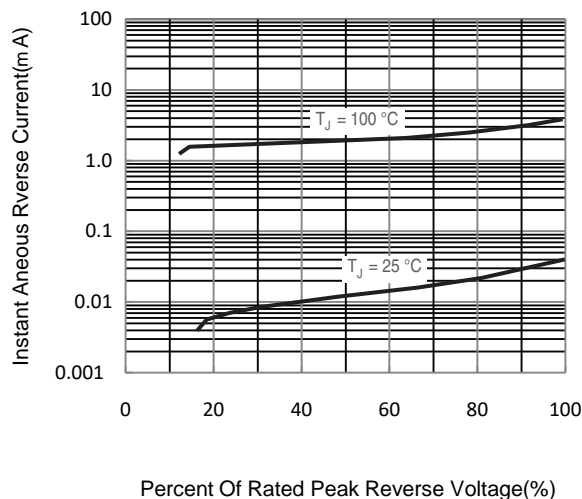
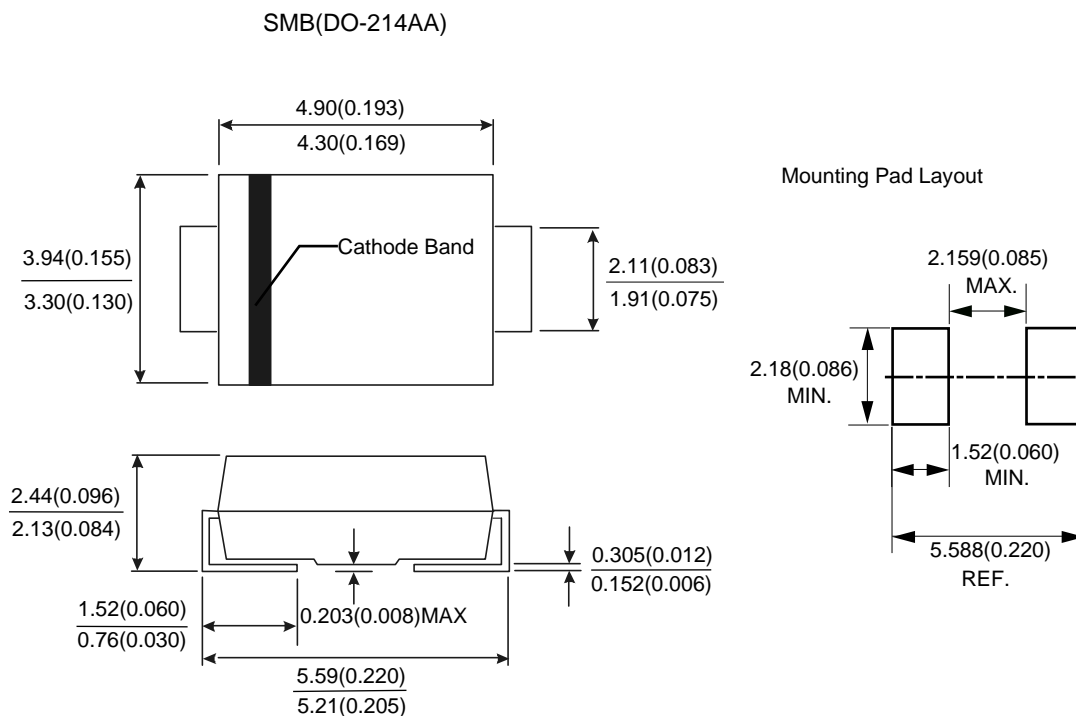


Fig.4 Typical Reverse Characteristics



Package Outline



Dimensions in millimeters and (inches)

Ordering Information

Outline	Reel (PCS)	Per Carton (PCS)	Reel Diameters (mm)
Taping	3,000		330/13"