

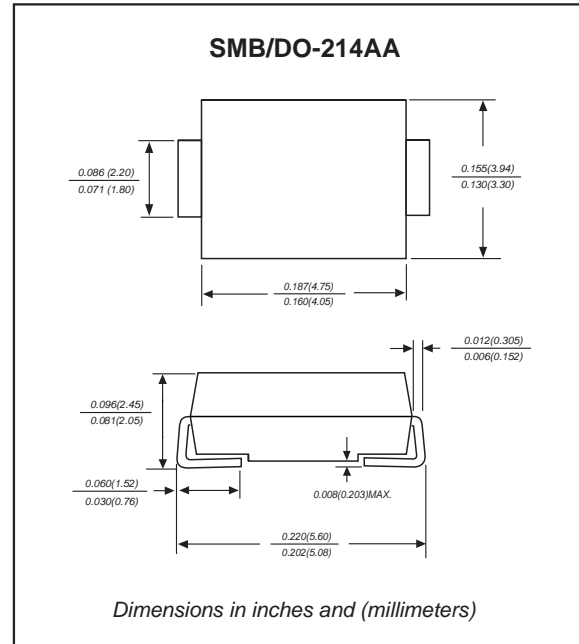
### Features

- Low profile package
- Idea for automated placement
- Glass passivated chip junction
- High forward surge current capability
- Fast reverse recovery time
- Compliant to Halogen - free

### Mechanical data

- **Case:** SMB/DO-214AA
- **Terminals:** Solder plated, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color line denotes the cathode end
- **Mounting Position:** Any

### Package outline



### Maximum ratings and Electrical Characteristics (Ta = 25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	$I_O$			5.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	$I_{FSM}$			120	A
Forward surge current	1ms single half sine-wave (JEDEC methode)	$I_{FSM}$			240	A
Reverse current	$V_R = V_{RRM} T_A = 25^\circ C$	$I_R$			10	$\mu A$
	$V_R = V_{RRM} T_A = 125^\circ C$				150	
Thermal resistance, NOTE 1	Junction to ambient	$R_{\theta JA}$		60		$^\circ C/W$
Storage temperature		$T_{STG}$	-55		+150	$^\circ C$

SYMBOLS	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	$t_{rr}^{*5}$ (ns)	$C_J^{*6}$ (pF)	Operating temperature $T_J$ ( $^\circ C$ )
RS5A-B	50	35	50	1.30	150	57	-55 to +150
RS5B-B	100	70	100				
RS5D-B	200	140	200				
RS5G-B	400	280	400		250	39	
RS5J-B	600	420	600				
RS5K-B	800	560	800				
RS5M-B	1000	700	1000	500	70		

- \*1 Repetitive peak reverse voltage
- \*2 RMS voltage
- \*3 Continuous reverse voltage
- \*4 Maximum forward voltage@ $I_F=5.0A$
- \*5 Maximum Reverse recovery time, NOTE 2
- \*6 Diode Junction Capacitance, NOTE 3

**Note:** 1.P.C.B. mounted with 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas  
 2. Reverse recovery time test condition,  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$   
 3. Measured at 1MHz and applied 4V DC reverse voltage

### Rating and characteristic curves

Fig.1 Maximum Average Forward Current Rating

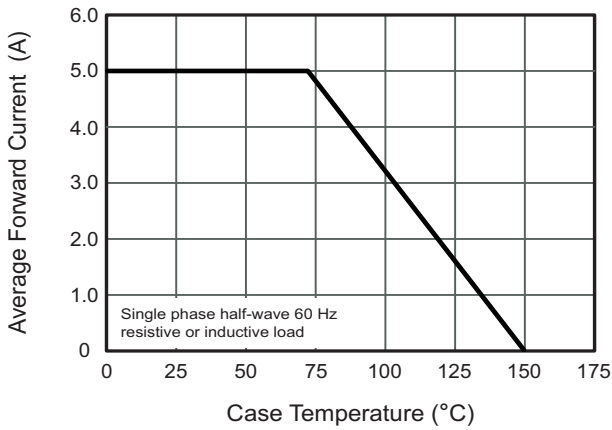


Fig.2 Typical Reverse Characteristics

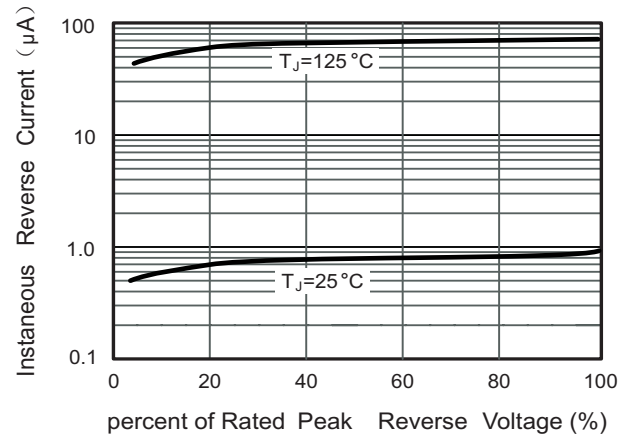


Fig.3 Typical Instantaneous Forward Characteristics

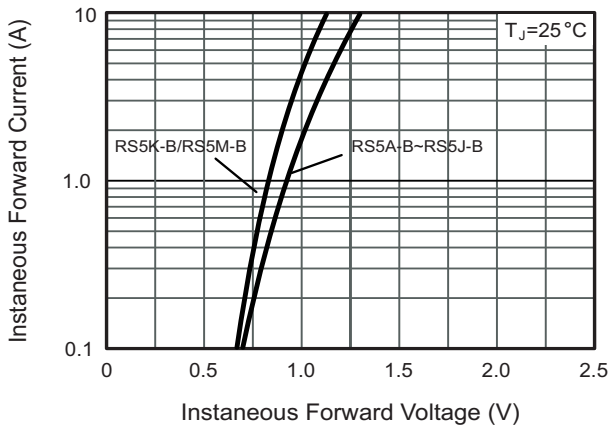


Fig.4 Typical Junction Capacitance

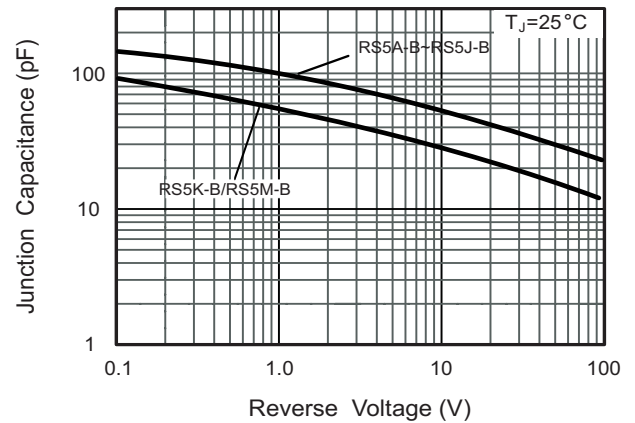
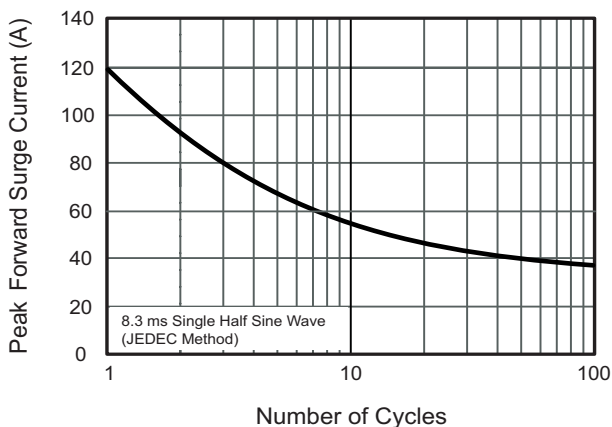




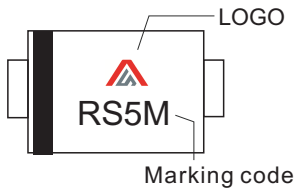
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



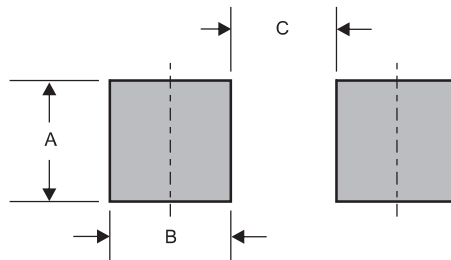
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code	Example
RS5A-B RS5B-B RS5D-B RS5G-B RS5J-B RS5K-B RS5M-B	RS5A RS5B RS5D RS5G RS5J RS5K RS5M	

### Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMB	0.090(2.30)	0.098(2.50)	0.070(1.80)