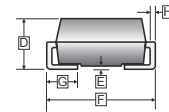
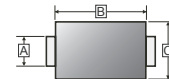


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

**FEATURES**

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250°C for 10 Seconds at Terminals
- Low Reverse Current

**SMB (DO-214AA)**



**MECHANICAL DATA**

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Axial Leads, Solderable per MIL-STD-202 Method 208 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

| REF. | Millimeter |      | REF. | Millimeter |       |
|------|------------|------|------|------------|-------|
|      | Min.       | Max. |      | Min.       | Max.  |
| A    | 1.91       | 2.20 | E    | -          | 0.203 |
| B    | 4.06       | 4.70 | F    | 5.08       | 5.59  |
| C    | 3.30       | 3.94 | G    | 0.76       | 1.52  |
| D    | 2.13       | 2.44 | H    | 0.15       | 0.305 |

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

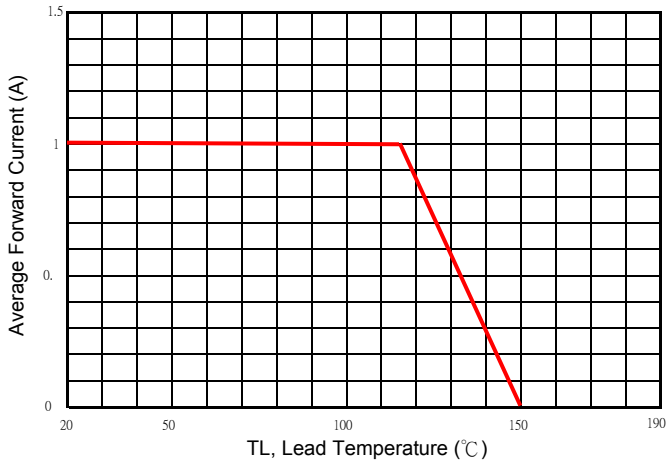
| TYPE NUMBER   | SYMBOL                      | SM1150B | UNITS            |
|---|-----------------------------|---------|------------------|
| Peak Repetitive Peak reverse voltage                                    | $V_{RRM}$                   | 150     | V                |
| Working Peak Reverse Voltage  | $V_{RWM}$                   |         |                  |
| Maximum DC Blocking Voltage   | $V_R$                       |         |                  |
| Average Forward Current @ $T_J=25^\circ\text{C}$                        | $I_{F(AV)}$                 | 1       | A                |
| Peak Forward Current @ 8.3 ms Half Sine                                 | $I_{FSM}$                   | 30      | A                |
| Maximum Instantaneous Forward Voltage<br>$V_F @ I_{FM} = 1.0 \text{ A}$ | @ $T_J = 25^\circ\text{C}$  | 0.85    | V                |
|   | @ $T_J = 125^\circ\text{C}$ | 0.67    |                  |
| Maximum Reverse Current At $V_{RRM}$ Voltage<br>( Note 3)               | @ $T_J = 25^\circ\text{C}$  | 0.1     | mA               |
|   | @ $T_J = 125^\circ\text{C}$ | 5       |                  |
| Typical Junction Capacitance (Note 1)                                   | $C_J$                       | 65      | pF               |
| Typical Thermal Resistance Note 2)                                      | $R_{\theta JL}$             | 25      | °C/W             |
| Voltage Rate of Change (Rated $V_R$ )                                   | $dv/dt$                     | 10000   | V/ $\mu\text{s}$ |
| Operating Temperature Range   | $T_J$                       | -50~150 | °C               |
| Storage temperature   | $T_{STG}$                   | -65~150 | °C               |

NOTES:

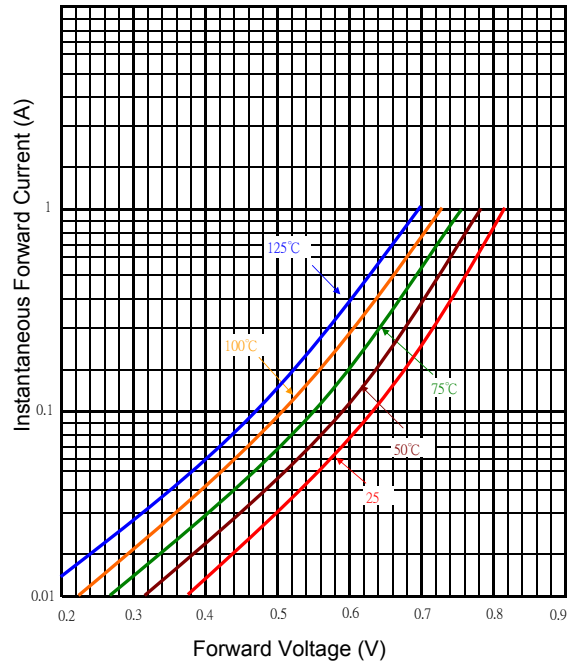
1. Measured at 1MHz and applied reverse voltage of 0 V D.C.
2. Thermal Resistance Junction to Lead.
3. Pulse test: 300us pulse width, 1% duty cycle

**RATINGS AND CHARACTERISTIC CURVES**

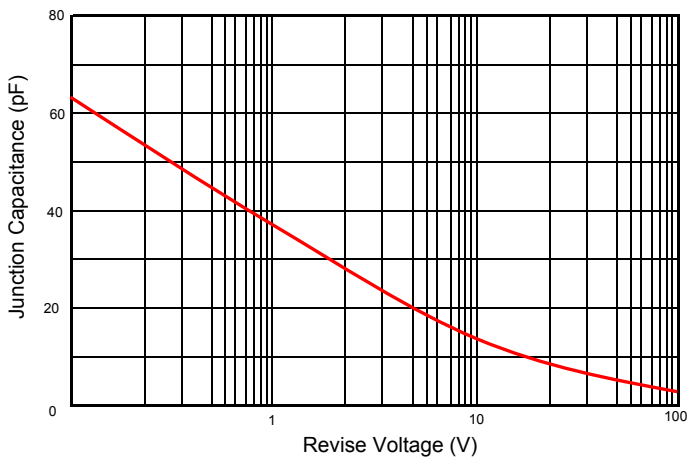
Typical Forward Current Derating Curve



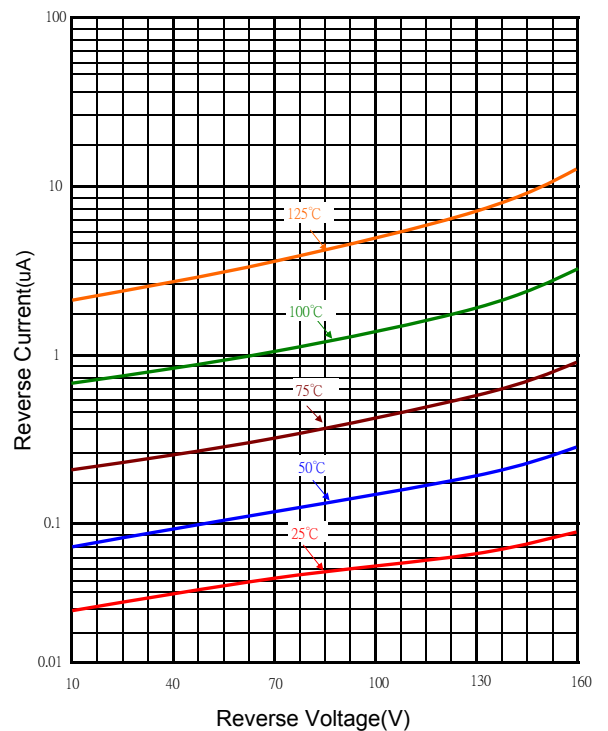
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

