

## 1 Amp. Surface Mount Schottky Barrier Rectifiers

<p><b>RoHS COMPLIANCE</b></p> <p><b>CASE: SMB/DO-214AA</b></p> <p>XX = Marking code WW = Week code Y = Year code</p> <p><b>Dimensions in mm.</b></p>	<p><b>Voltage</b> 60 V</p> <p><b>Current</b> 1.0 A</p>
	<ul style="list-style-type: none"> <li>• For surface mounted application</li> <li>• Easy pick and place</li> <li>• Metal to silicon rectifier, majority carrier conduction</li> <li>• Low power loss, high efficiency</li> <li>• High current capability, low VF</li> <li>• High surge current capability</li> <li>• Plastic material used carriers Underwriters Laboratory Classification 94V-0</li> <li>• Epitaxial construction</li> <li>• High temperature soldering: 260 °C / 10 seconds at terminals</li> </ul> <p><b>MECHANICAL DATA</b> Case: JEDEC SMB / DO-214AA Molded plastic Terminals: Pure tin plated, lead free Polarity: Indicated by cathode band Packaging: 12 mm tape EIA-STD RS-481. Weight: 0.093 g.</p>

### Maximum Ratings and Electrical Characteristics at 25 °C

		<b>FSS16SMB</b>
	Marking code	<b>5A</b>
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage (V)	60
$V_{RMS}$	Maximum RMS Voltage (V)	42
$V_{DC}$	Maximum DC Blocking Voltage (V)	60
$I_{F(AV)}$	Forward Current at $T_L$ (See graphic)	1.0 A
$I_{FSM}$	8.3 ms. Peak Forward Surge Current (Jedec Method)	30 A
$T_j$	Operating Temperature Range	-55°C to +125 °C
$T_{stg}$	Storage Temperature Range	-55°C to + 125 °C

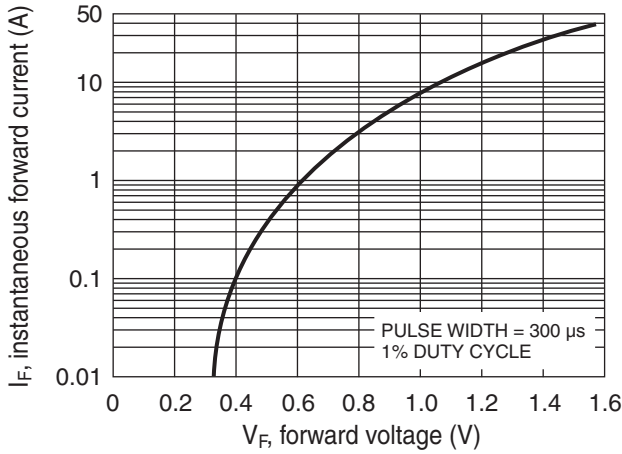
### Electrical Characteristics at $T_{amb} = 25\text{ °C}$

$V_F$	Maximum Instantaneous Forward Voltage (Note 1) $I_F = 50\text{ mA}$ @ 25 °C	0.40 V
$I_R$	At 24V DC Reverse Current $T_j = 75\text{ °C}$ at Rated DC Blocking Voltage $T_a = 125\text{ °C}$	0.01 mA
		4 mA
$C_j$	Typical Junction Capacitance (Note 3)	90 pF
$R_{th(j-a)}$	Max. Thermal Resistance (Note 2)	36 °C/W

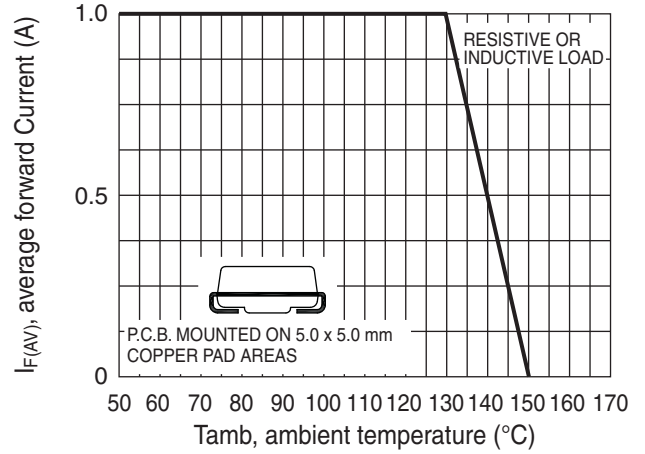
- NOTES: 1. Pulse Test With PW = 300 µsec, 1% Duty Cycle  
2. Measured on P.C. Board with 5mm x 5mm Copper Pad Areas  
3. Measured at 1 MHz and Applied Reverse Voltage of 5.0 V D.C.

**Rating And Characteristic Curves**

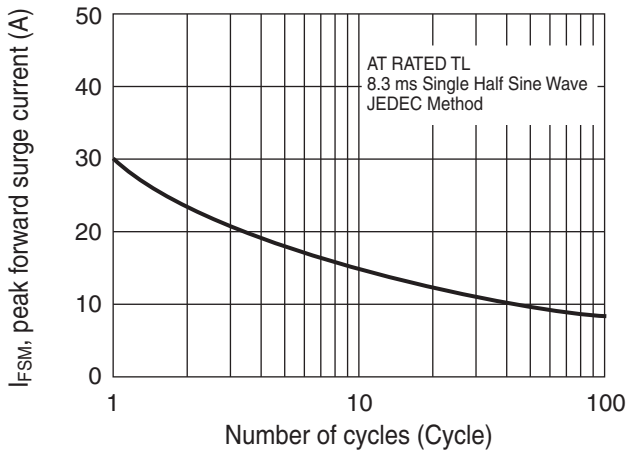
**TYPICAL FORWARD CHARACTERISTIC**



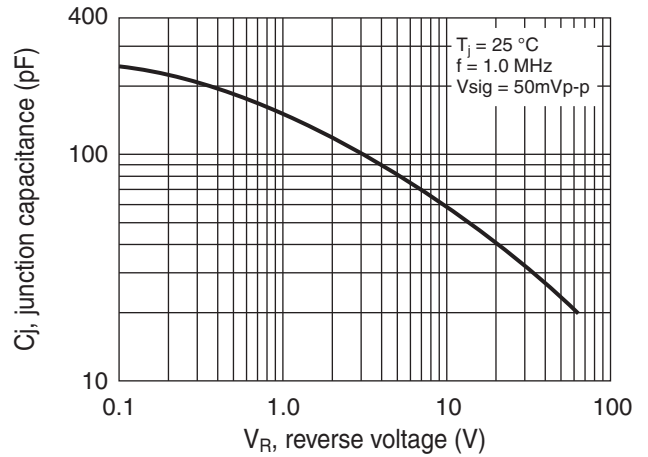
**MAXIMUM FORWARD CURRENT DERATING CURVE**



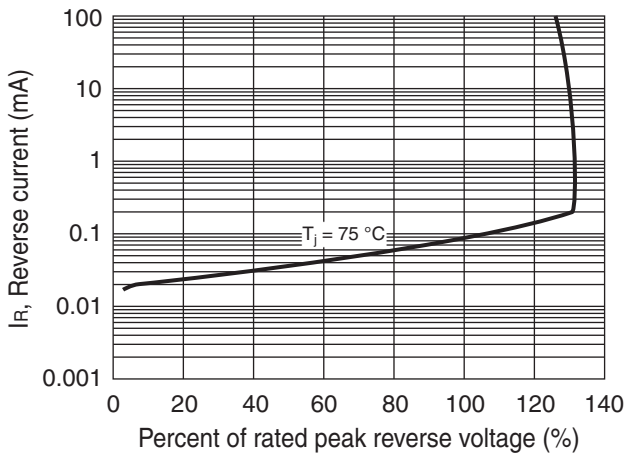
**MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**TYPICAL JUNCTION CAPACITANCE**



**TYPICAL REVERSE CHARACTERISTIC**



**TYPICAL TRANSIENT THERMAL CHARACTERISTIC**

