SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

SS52 - SS510

DO-214AA (SMB)

Surface Mount
Plastic Package

Polarity : Colour Band denotes Cathode end

FEATURES

1) Metal Silicon Junction, Majority Carrier Conduction
2) Low Power Loss for High Efficiency
3) Built-in Strain relief, Ideal for automated placment
4) High Forward Surge Current Capability
5). The Plastic Package carries Underwriters Laboratory Flammability Classification 94V-O.
6). High Temperature Soldering Guaranteed : 250°C/10 seconds at teminals.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

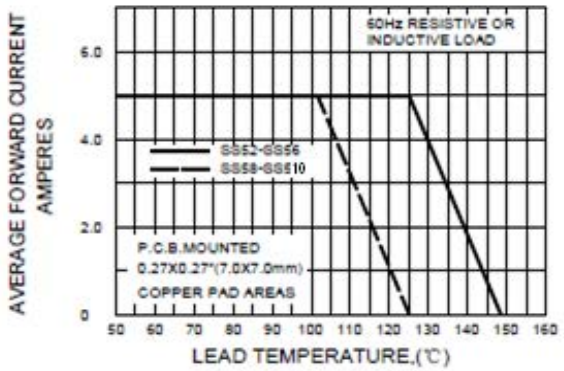
(Ratings at T_A=25°C Ambient Temperature unless otherwise specified.)
Single Phase, Half Wave, 60Hz, Resistive or Inductive Load. For Capacitive Load, Derate Current by 20%.

CHARACTERISTICS		SYMBOL	SS52	SS53	SS54	SS55	SS56	SS58	SS510	UNIT
Maximum Repetitive 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 at T_L=110°C		$I_{(AV)}$	5.0							A
Peak Forward Surge Current 8.3ms Single Half Sine -Wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	150							A
Maximum Instantaneous Forward Voltage at 5.0A		V_F	0.55			0.7		0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	0.5							μA
	T_A=100°C		20					10		
Typical Junction Capacitance (Note 1)		Cj	200							pF
Typical Thermal Resistance (Note 2)		$R_{\theta J-A}$	50							°C/W
Operating Junction Temperature Range		T_J	-55 to +125					-55 to +150		°C
Operating Storage Temperature Range		T_{stg}	-55 to +150							°C

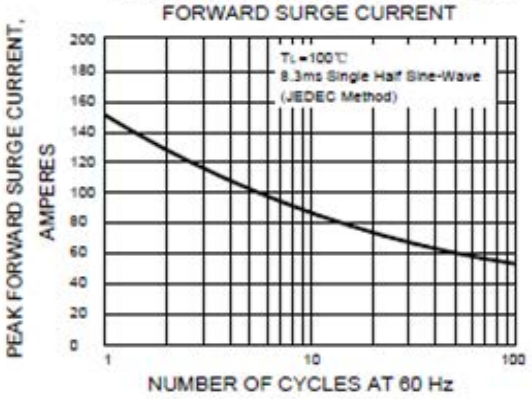
Note 1. Measured at 1.0MHz and Applied Average Voltage of 4.0V DC.
Note 2. PCB mounted with 0.2 X 0.2" (5.0 X 5.0mm) copper pad area

CHARACTERISTICS CURVES

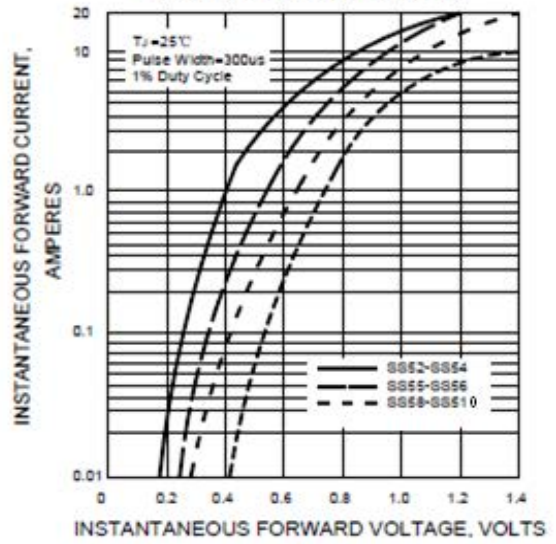
F1G.1-FORWARD CURRENT DERATING CURVE



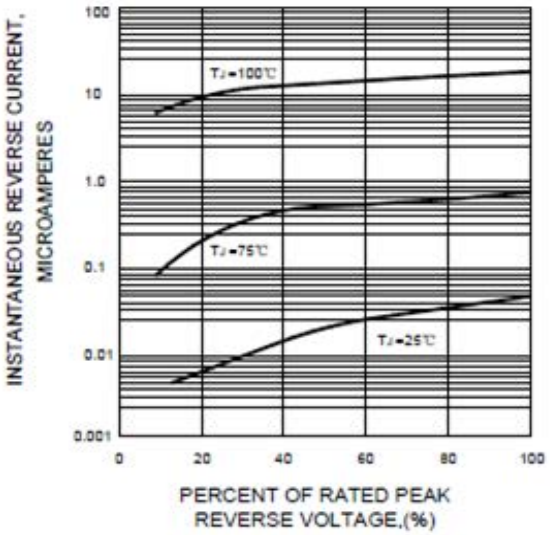
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



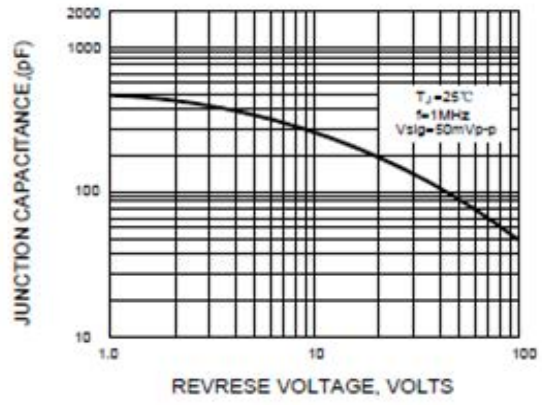
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



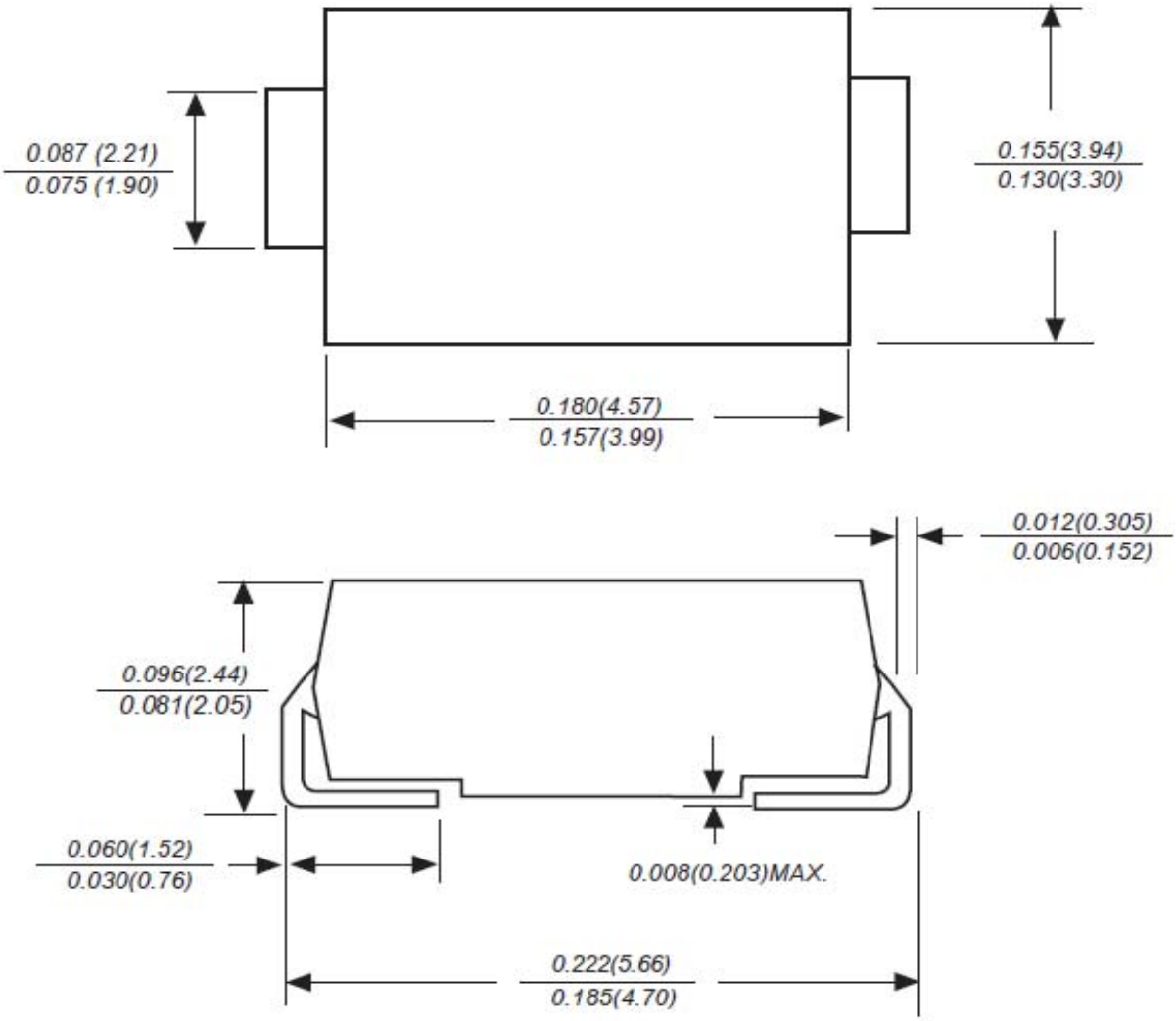
F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



DO-214AA (SMB) PACKAGE OUTLINE AND DIMENSION



Dimensions in inches and (millimeters)

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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