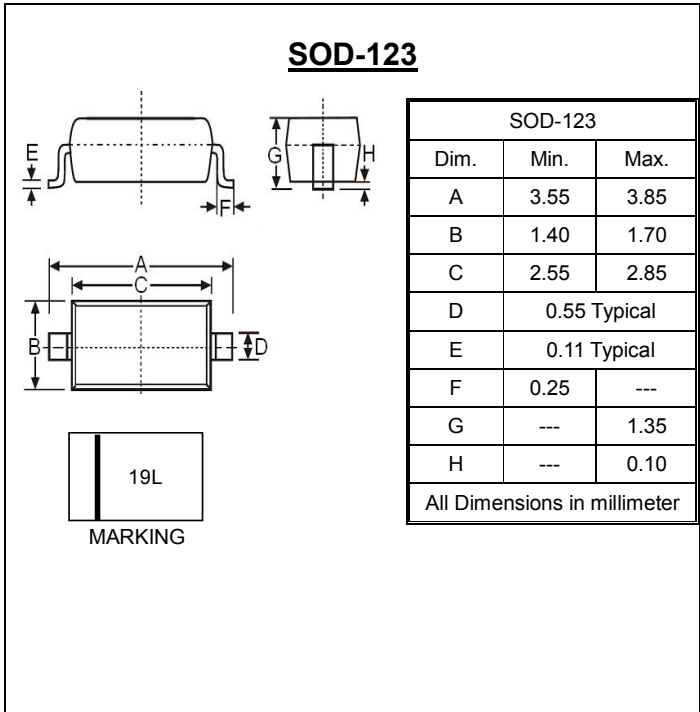


**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 40 Volts  
FORWARD CURRENT – 1.0 Ampere**

- FEATURES**
- Low Forward Voltage Drop
  - High Surge Capability and High Current Capability
  - For Surface Mounted Applications
  - High Conductance
  - Guard Ring Construction for Transient Protection
  - IEC 61000-4-2, level 4 (ESD), >15KV (air)
- MECHANICAL DATA**
- Case: SOD-123 Plastic
  - Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
  - Moisture Sensitivity: Level 1 per J-STD-020D
  - Lead Pb-Free in RoHS 2002/95/EC Compliant
  - Weight: approx. 0.01 grams (approximate)



**Maximum Ratings and Thermal Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified**

Characteristic	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	40	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	V
Forward Continuous Current (Note 1) @ TC=75°C	I <sub>F</sub>	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25	A
Power Dissipation (Note 1)	P <sub>D</sub>	450	mW
Thermal Resistance (Note 2)	R <sub>θJA</sub>	230	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +125	°C

**Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified**

Parameter	Symbol	Value	Unit	Test Condition
Minimum Reverse Breakdown Voltage	V <sub>(BR)R</sub>	40	V	I <sub>R</sub> = 1.0mA
Maximum Forward Voltage	V <sub>F</sub>	320	mV	IF = 0.1A
		450		IF = 1.0A
		750		IF = 3.0A
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	50	uA	VR = 4.0V, T <sub>J</sub> = 25°C
		75		VR = 6.0V, T <sub>J</sub> = 25°C
		1.0	mA	VR = 40V, T <sub>J</sub> = 25°C
		10		VR = 40V, T <sub>J</sub> = 100°C
		2.0		VR = 4.0V, T <sub>J</sub> = 100°C
3.0	VR = 6.0V, T <sub>J</sub> = 100°C			
Typical Junction Capacitance	C <sub>J</sub>	70	pF	V <sub>R</sub> = 4V DC, f = 1.0MHz

**Note :**

- (1)Unit mounted with 7.0\*7.0mm copper pad areas
- (2)Thermal Resistance Junction to Ambient,

**REV. 4, Sep-2012, KSHR01**

FIG.1- FORWARD CURRENT DERATING CURVE

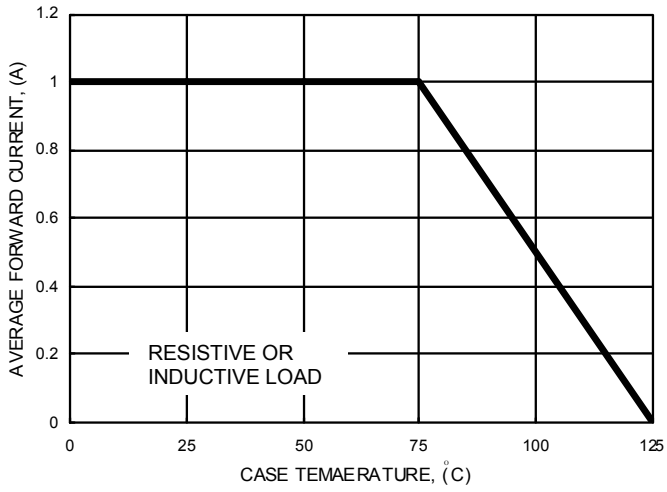


FIG.2- TYPICAL JUNCTION CAPACITANCE

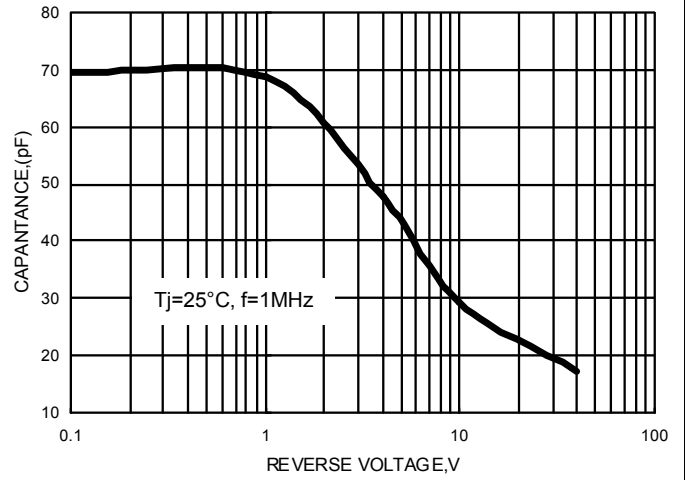


FIG.3- TYPICAL FORWARD CHARACTERISTICS

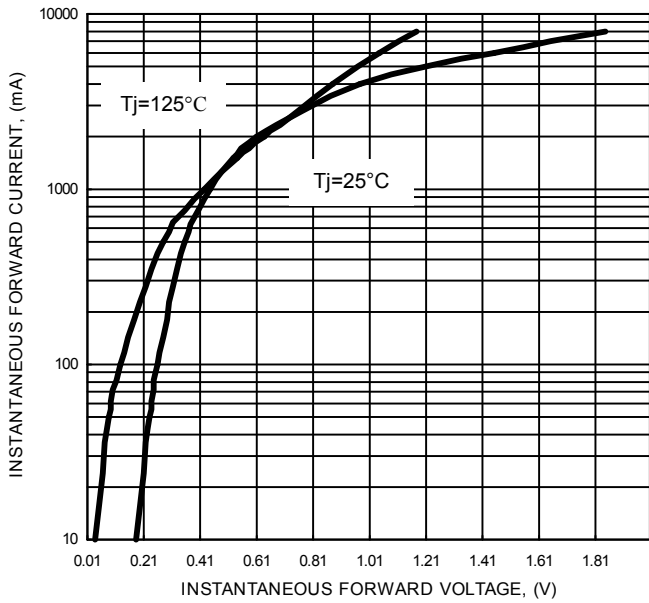


FIG.4- TYPICAL REVERSE CHARACTERISTICS

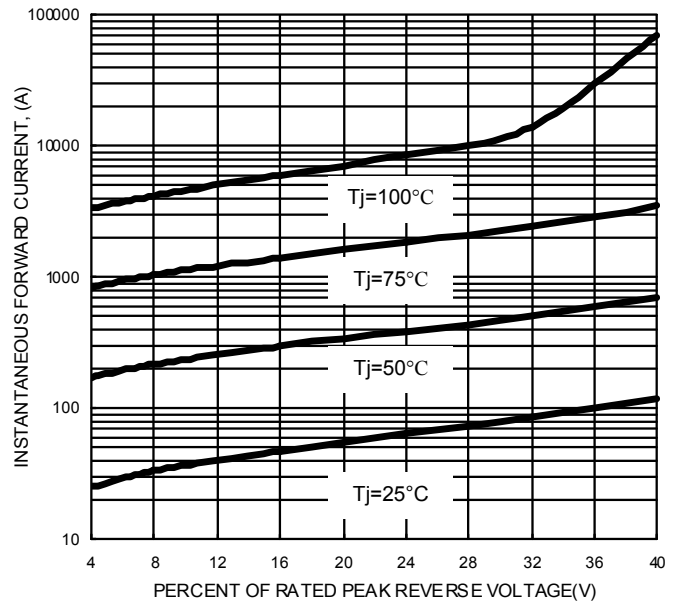


FIG.5- MAXIMUM NON-REPETITIVE SURGE CURRENT

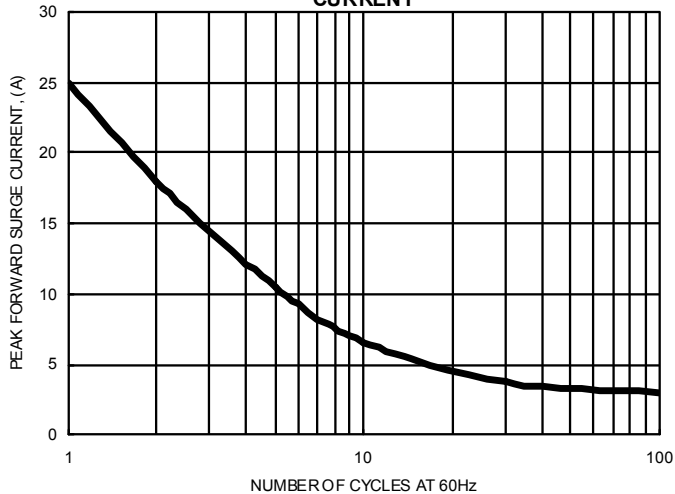
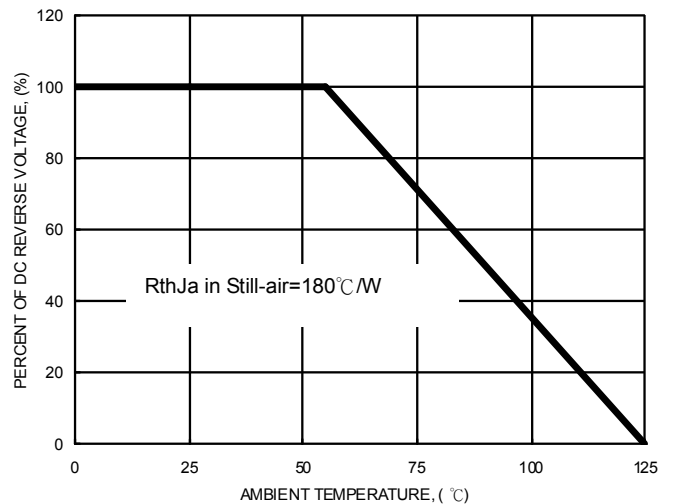


FIG.6- DC REVERSE VOLTAGE DERATING CURVE



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