

**Low VF Surface Mount  
Schottky Barrier Rectifiers**

**(Pb)** Lead(Pb)-Free

**REVERSE VOLTAGE**  
20-40 Volts  
**FORWARD CURRENT**  
2.0 AMPERES



**SMA-1**

**Features:**

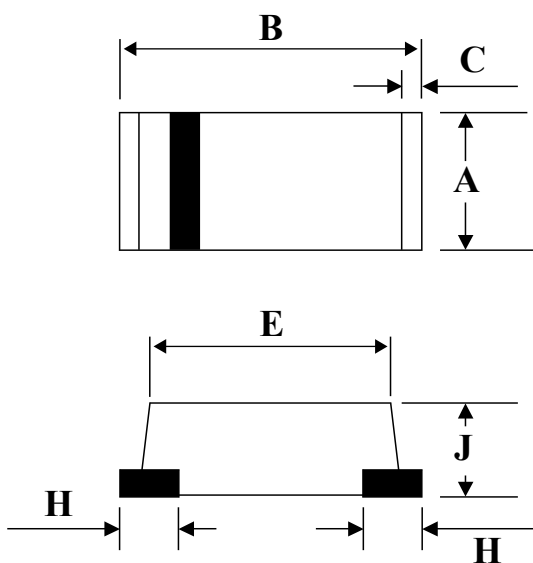
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound.
- \* For surface mounted applications.
- \* Exceeds environmental standards of MIL-S-19500 / 228.
- \* Low leakage current.

**Mechanical Data:**

- \* Case : Molded plastic, JEDEC DO-214AC
- \* Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity : Indicated by cathode band
- \* Mounting Position : Any
- \* Weight : 0.05 gram

**SMA-1 Outline Dimension**

unit:mm



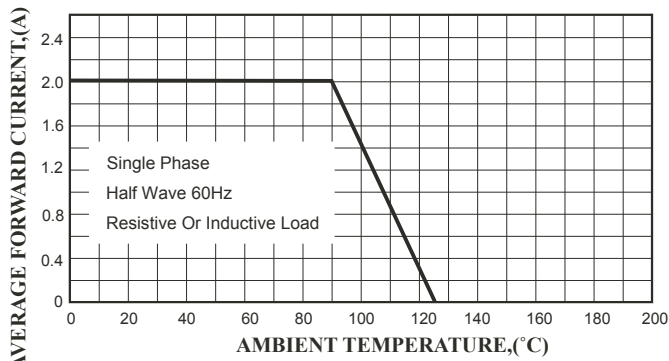
SMA-1		
Dim	Min	Max
A	2.2	2.8
B	4.2	4.8
C	-	0.30(TYP)
H	-	0.40(TYP)
J	1.4	1.8

### MAXIMUM RATING

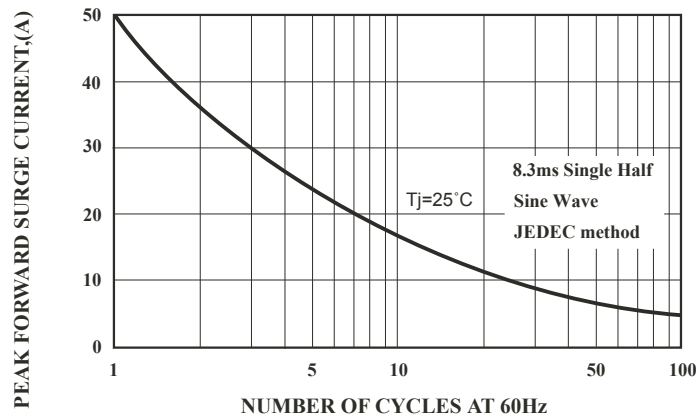
Characteristics	Symbol	SL22A	SL23A	SL24A	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	V
Continuous Reverse Voltage	$V_R$	20	30	40	V
Maximum Instantaneous @ $T_A=25^{\circ}C$	$V_F$	0.38	0.40	0.40	V
Maximum Average Forward (Fig.1)	$I_O$	2.0			A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50			A
Maximum DC Reverse Current @ $T_A=25^{\circ}C$ At Rated DC Blocking Voltage @ $T_A=100^{\circ}C$	$I_R$	1.0 10			mA
Typical Thermal Resistance	$R_{\theta JA}$	70(TYP)			$^{\circ}C/W$
Diode Junction Capacitance $f=1MHz$ and applied 4vDC Reverse Voltage	$C_J$	160(TYP)			pF
Operating Temperature Range	$T_J$	+125			$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to+125			$^{\circ}C$

### Device Marking

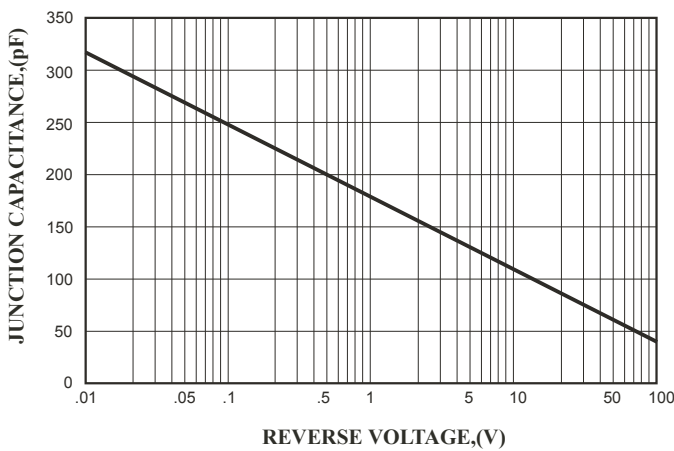
SL22A=SL22 , SL23A=SL23 , SL24A=SL24



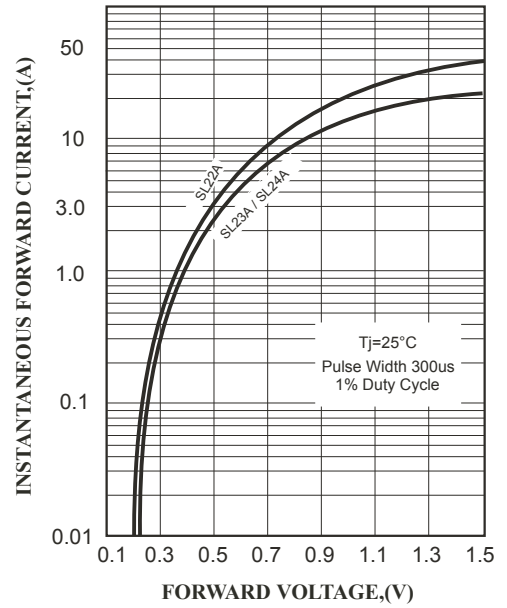
**FIG.1 Typical Forward Current Derating Curve**



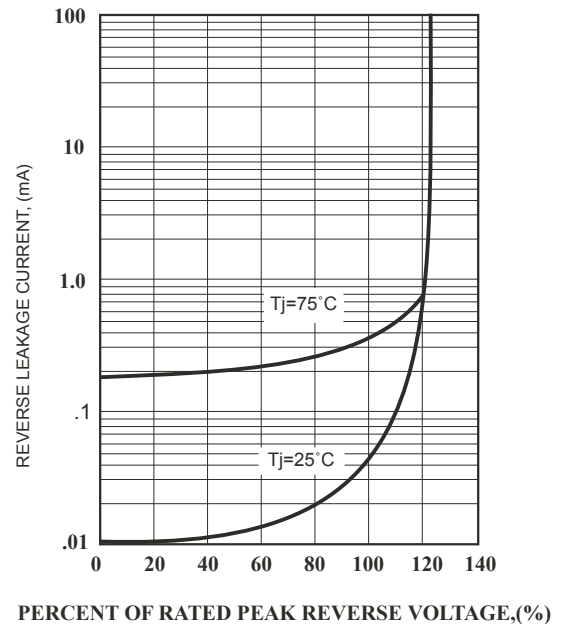
**FIG.3 Maximum Non-Repetitive Forward Surge Current**



**FIG.4 Typical Junction Capacitance**



**FIG.2 Typical Forward Characteristics**



**FIG.5 Typical Reverse Characteristics**