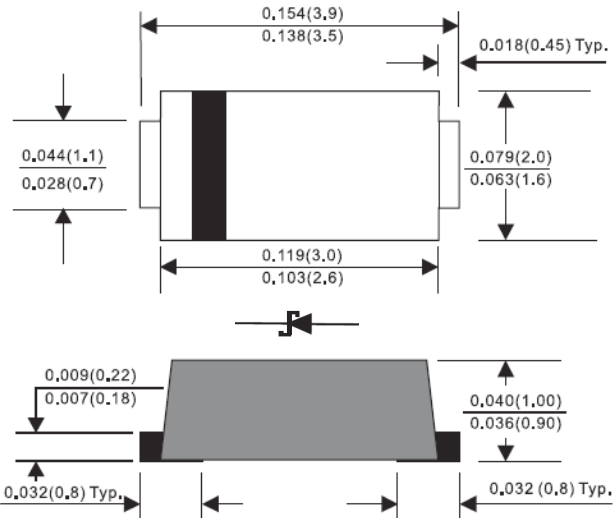


## 1A SMD LOW V<sub>F</sub> SCHOTTKY BARRIER RECTIFIERS, 20V-40V



Top View Dimensions:  
 Total width: 0.154(3.9) / 0.138(3.5)  
 Lead width: 0.018(0.45) Typ.  
 Lead height: 0.079(2.0) / 0.063(1.6)  
 Body width: 0.119(3.0) / 0.103(2.6)  
 Body height: 0.044(1.1) / 0.028(0.7)

Side View Dimensions:  
 Lead height: 0.009(0.22) / 0.007(0.18)  
 Body height: 0.040(1.00) / 0.036(0.90)  
 Lead thickness: 0.032(0.8) Typ.  
 Body thickness: 0.032(0.8) Typ.

### PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. EXCELLENT REVERSE LEAKAGE CURRENT AND THERMAL RESISTANCE
3. HIGH CURRENT CAPABILITY, LOW POWER LOSS
4. SILICON EPITAXIAL PLANAR CHIP, METAL SILICON JUNCTION
5. GUARDRING FOR OVERVOLTAGE PROTECTION
6. CASE: TRANSFER MOLDED, SOD-123S (MINI SMA)
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-750 METHOD 2026
9. WEIGHT: 0.0155 GRAMS
10. RoHS COMPLIANT, ADD SUFFIX "H" FOR HALOGEN FREE  
i.e. SL12-MS-H: RoHS COMPLIANT/HALOGEN FREE

## ELECTRICAL CHARACTERISTICS

### MAXIMUM RATINGS (T<sub>A</sub> =25°C UNLESS OTHERWISE NOTED ) AND ELECTRICAL CHARACTERISTICS

RATING	SYMBOL		UNITS
MAXIMUM FORWARD RECTIFIED CURRENT	I <sub>O</sub>	1	A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I <sub>FSM</sub>	30	A
TYPICAL JUNCTION CAPACITANCE BETWEEN TERMINALS (NOTE 1)	C <sub>J</sub>	130	pF
STORAGE TEMPERATURE RANGE	T <sub>STG</sub>	- 65 TO +175	°C
OPERATING JUNCTION TEMPERATURE RANGE	T <sub>J</sub>	- 55 TO +100	°C
MAX. DC REVERSE CURRENT AT RATED DC BLOCKING VOLTAGE T <sub>J</sub> = 25°C	I <sub>R</sub>	1	mA
MAX. DC REVERSE CURRENT AT RATED DC BLOCKING VOLTAGE T <sub>J</sub> = 75°C	I <sub>R</sub>	20	mA
TYPICAL THERMAL RESISTANCE	R <sub>θJA</sub>	53	°C/W
	R <sub>θJC</sub>	35	°C/W

PART NUMBER	MAX RECURRENT PK REVERSE VOLTAGE/DC BLOCKING V <sub>RRM</sub> /V <sub>R</sub> (V)	MAX V <sub>RMS</sub> (V)	TYPICAL FORWARD VOLTAGE AT I <sub>F</sub> = 1A V <sub>F</sub> (V)	MARKING
SL12-MS	20	14	0.38	L2
SL14-MS	40	28	0.40	L4

NOTE : 1. MEASURE AT 1MHz WITH 4VDC REVERSE VOLTAGE APPLIED.  
 2. CURRENT RATING IS BASED ON SINGLE PHASE, 1/2 WAVE, 60HZ, RESISTIVE, OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.



## RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

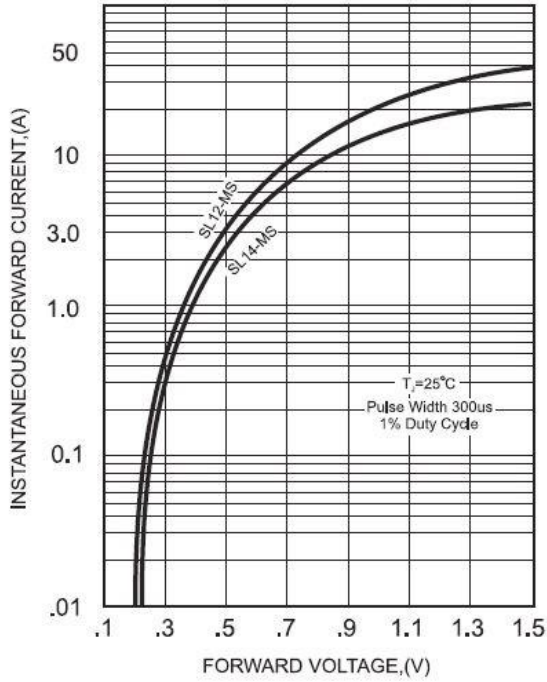


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

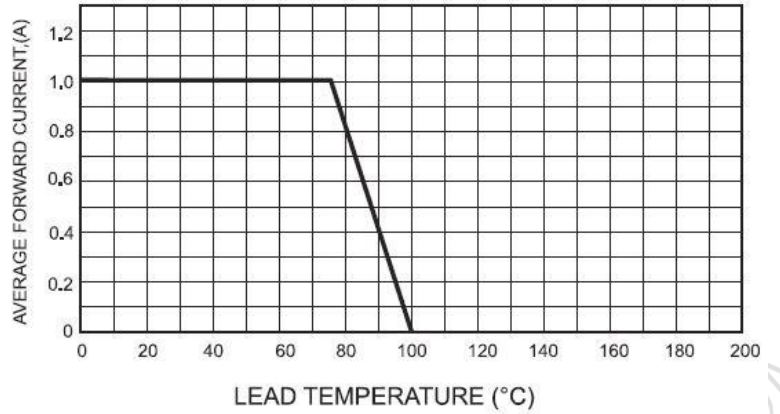


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

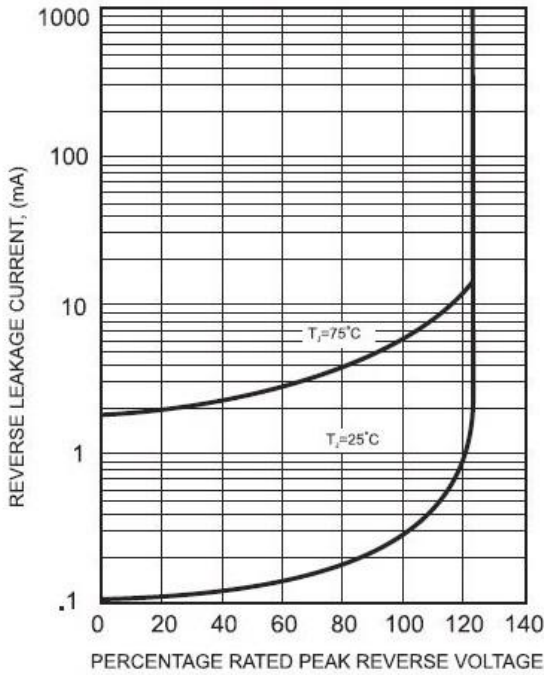


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

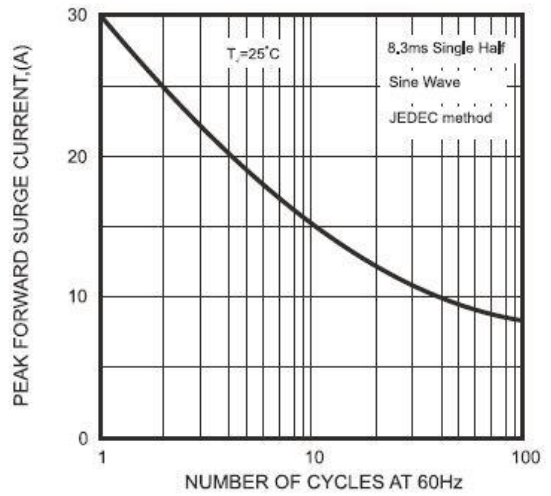
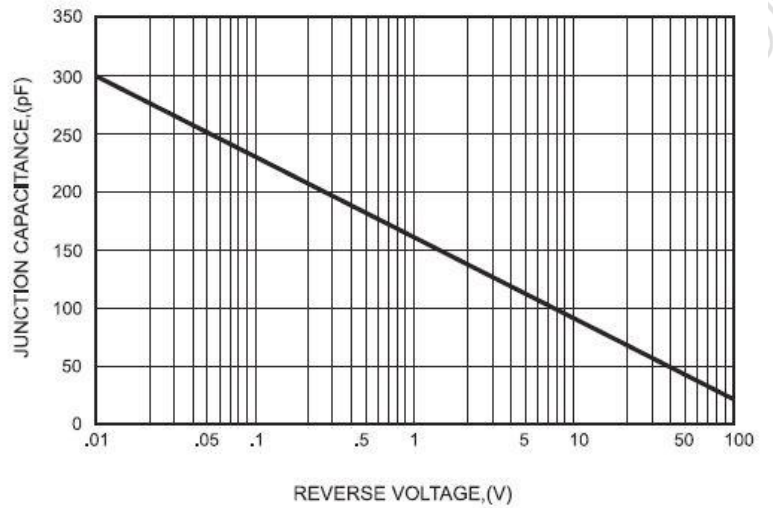
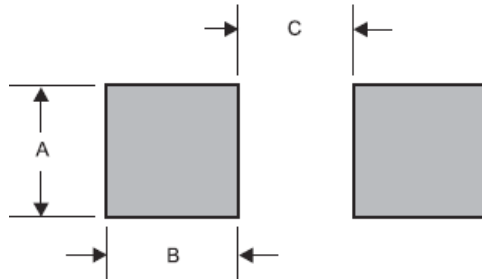


FIG.5-TYPICAL JUNCTION CAPACITANCE



## LAYOUT RECOMMENDATION



PACKAGE	A	B	C
SOD-123S	0.044 (1.10)	0.040 (1.00)	0.079 (2.00)