

# Surface Mount Schottky Power Rectifier

## Plastic SOD-123 Package

### Features

- Small power mold type.
- Low  $I_R$ .
- We declare that the material of product compliance with RoHS requirements.

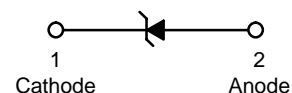
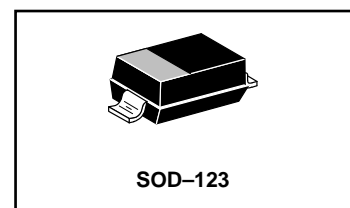
### Construction

- Silicon epitaxial planar

### Mechanical Characteristics

- Device Marking: 16
- Polarity Designator: Cathode Band
- Weight: 11.7 mg (approximately)
- Case: Molded plastic
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead and Mounting Surface Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

**LMBR160T1G**



### ORDERING INFORMATION

Device	Package	Shipping
LMBR160T1G	SOD-123	3000/Tape & Reel
LMBR160T3G	SOD-123	10,000/Tape & Reel

### Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	60	V
Reverse voltage (DC)	$V_R$	60	V
Average rectified forward current	$I_O$	1	A
Forward current surge peak (60Hz · 1cyc)	$I_{FSM}$	5.5	A
Operating temperature	Top	-55 to +150	°C
Storage temperature	Tstg	-65 to +175	°C
Typical diode junction capacitance	$C_J$	120	pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	98	°C/W

### Electrical characteristics ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Min.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	0.7	V	$I_F=1.0A$
Reverse current	$I_R$	-	0.5	mA	$V_R=60V$
Reverse current ( $T_a=125^\circ\text{C}$ )	$I_R$	-	10	mA	$V_R=60V$

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Electrical characteristic curves ( $T_a=25^\circ\text{C}$ )

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

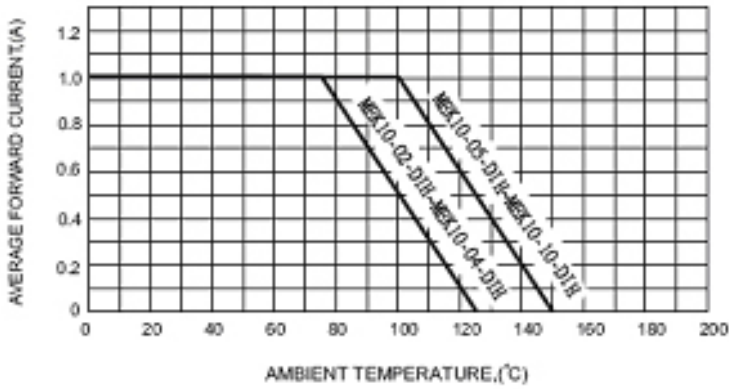


FIG.2-TYPICAL FORWARD CHARACTERISTICS

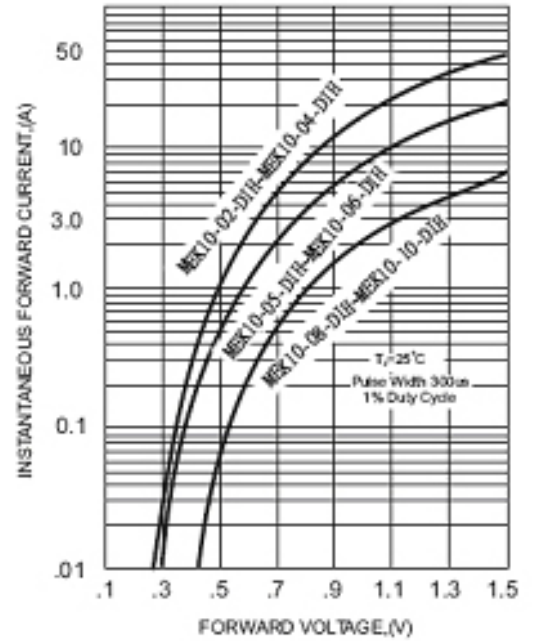


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

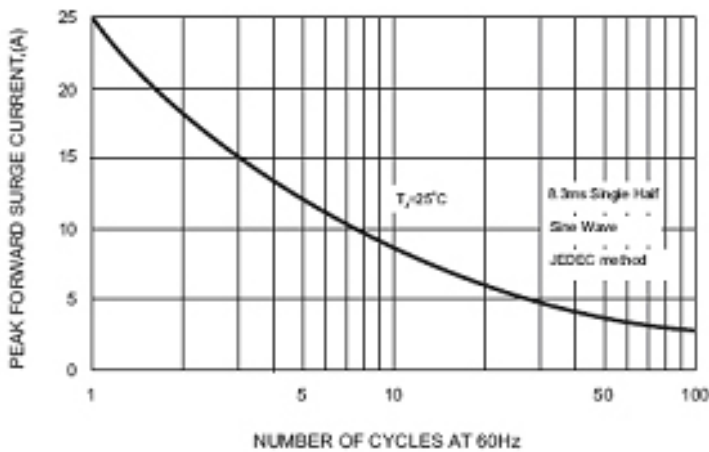


FIG.5-TYPICAL REVERSE CHARACTERISTICS

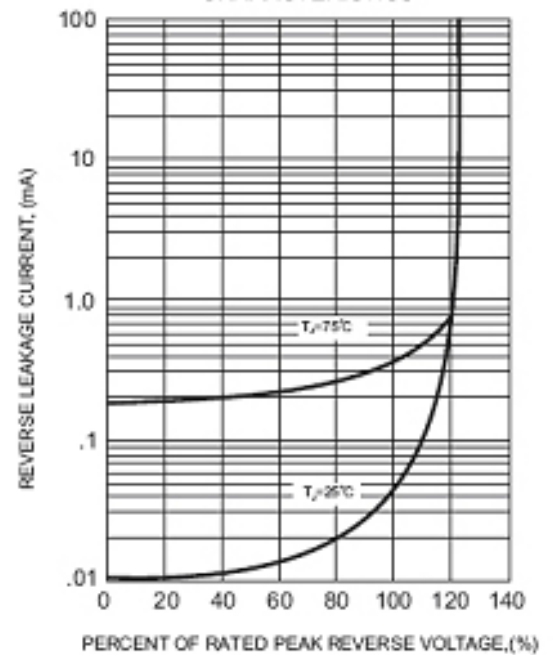
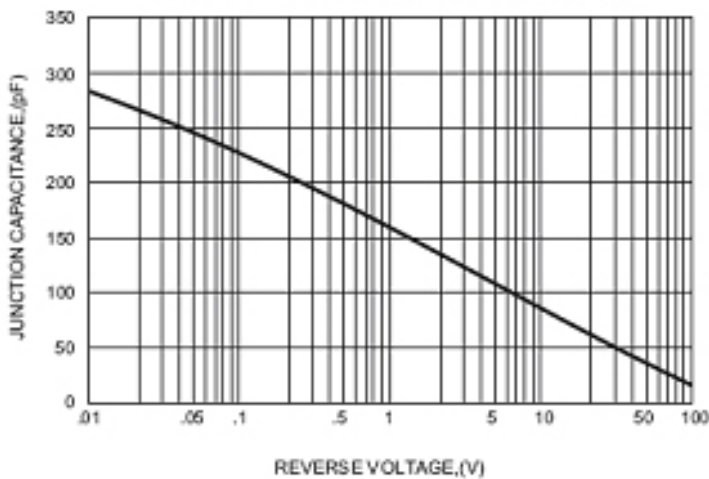


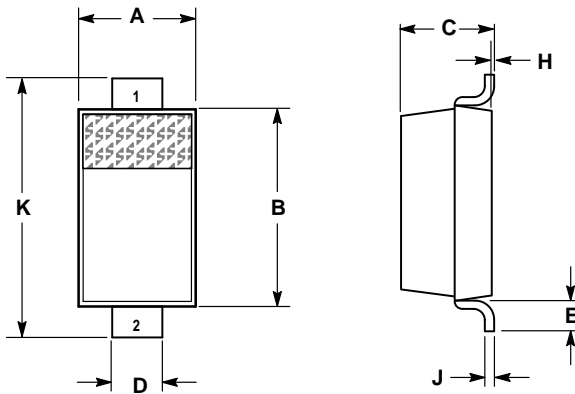
FIG.4-TYPICAL JUNCTION CAPACITANCE



**LMBR160T1G**

**PACKAGE DIMENSIONS**

**SOD-123**

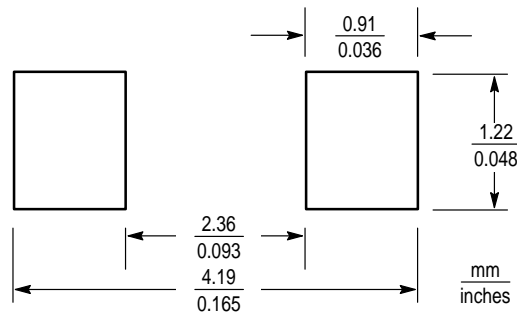


- NOTES:  
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.  
 2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.071	1.40	1.80
B	0.100	0.112	2.55	2.85
C	0.037	0.053	0.95	1.35
D	0.020	0.028	0.50	0.70
E	0.004	—	0.25	—
H	0.000	0.004	0.00	0.10
J	—	0.006	—	0.15
K	0.140	0.152	3.55	3.85

STYLE 1:  
 PIN 1, CATHODE  
 2, ANODE

**RECOMMENDED FOOTPRINT FOR SOD-123**



**SOD-123**