

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.

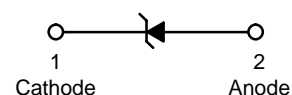
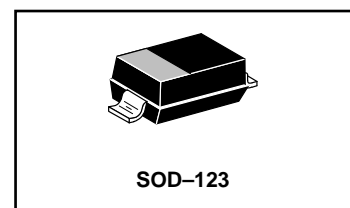
Construction

- 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	$^\circ\text{C}$
Storage temperature	Tstg	-65 to +175	$^\circ\text{C}$
Typical diode junction capacitance	C_J	120	pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	98	$^\circ\text{C/W}$

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

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

LMBR160T1G

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

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

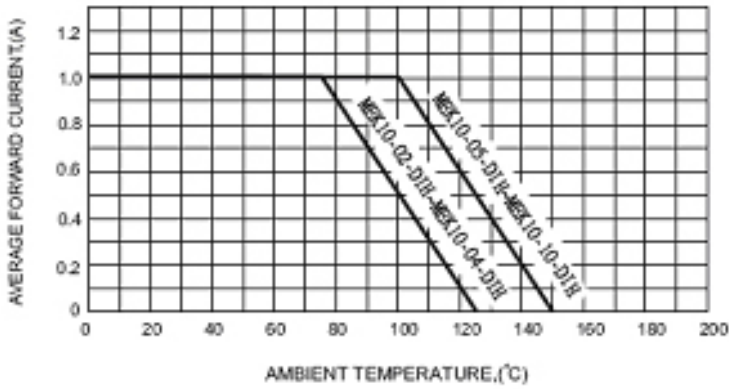


FIG.2-TYPICAL FORWARD CHARACTERISTICS

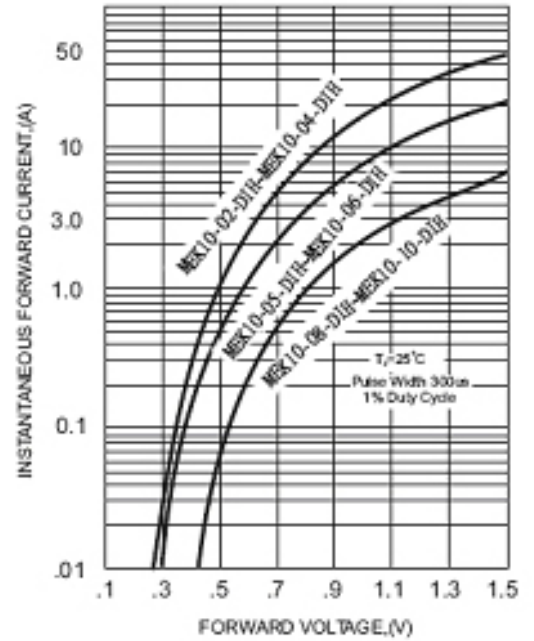


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

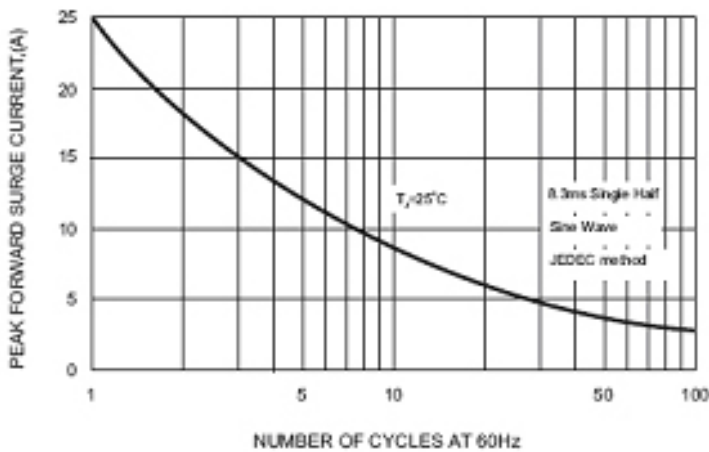


FIG.5-TYPICAL REVERSE CHARACTERISTICS

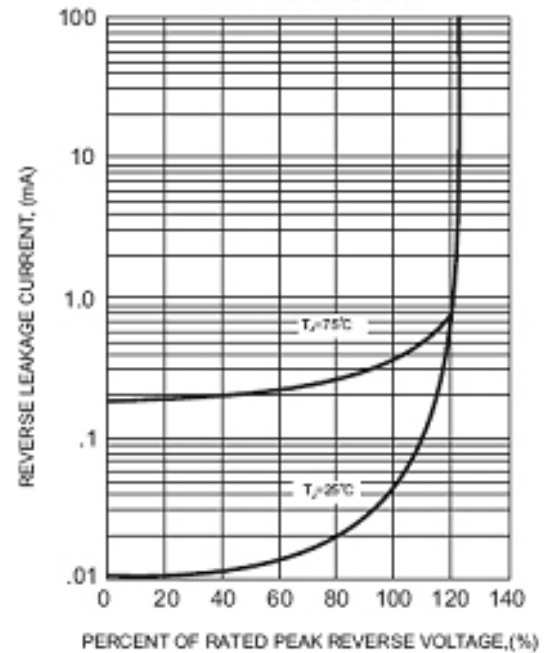
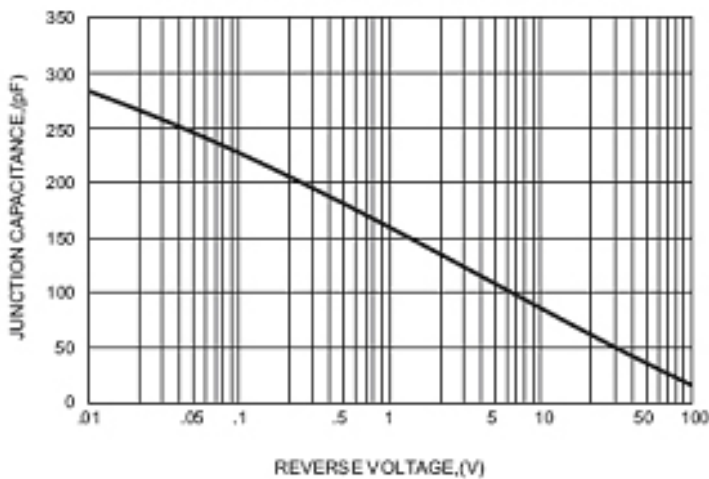


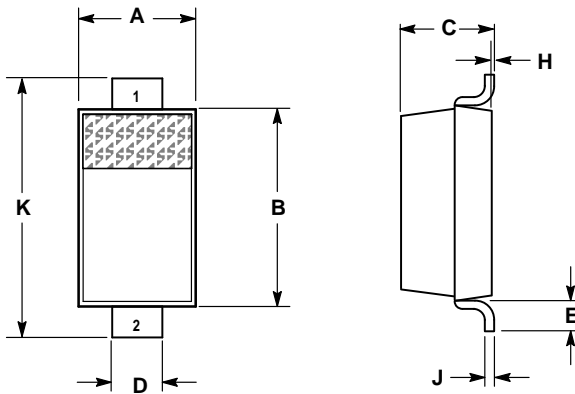
FIG.4-TYPICAL JUNCTION CAPACITANCE



LMBR160T1G

PACKAGE DIMENSIONS

SOD-123

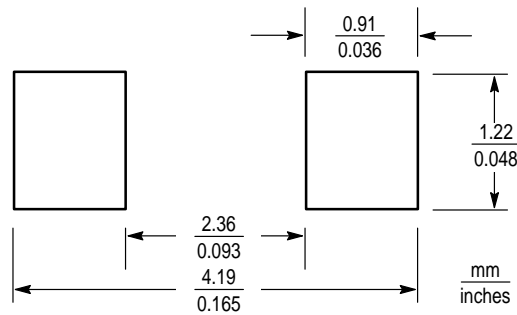


- NOTES:
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.

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