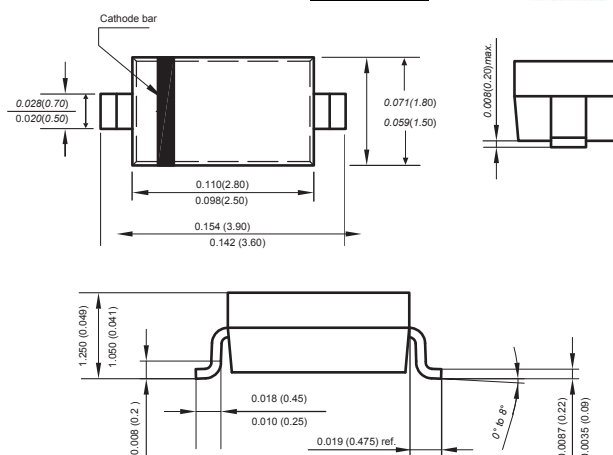


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- ◆ Fast switching speed
- ◆ Surface mount package ideally suited
- ◆ for automatic insertion
- ◆ For general purpose switching applications
- ◆ High conductance

SOD-123


Mechanical Data

Case : JEDEC SOD-123 molded plastic body
 Terminals : Plated leads solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbols marked on case
 Weight : 0.00056ounce, 0.016 grams
 Marking: MBRX160:X6,

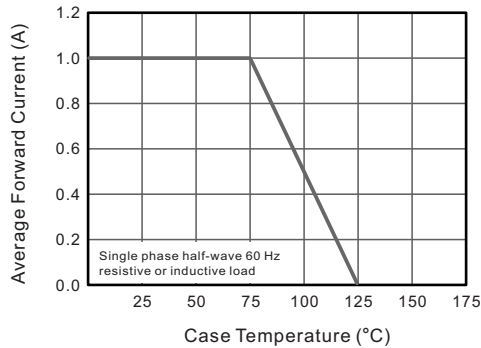
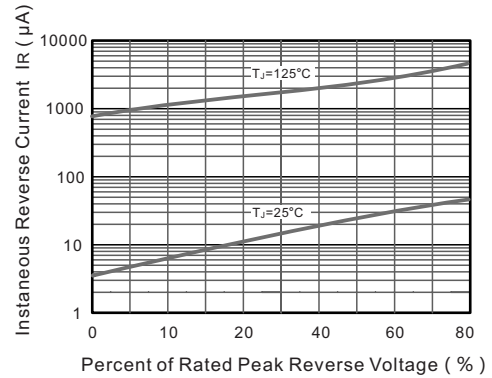
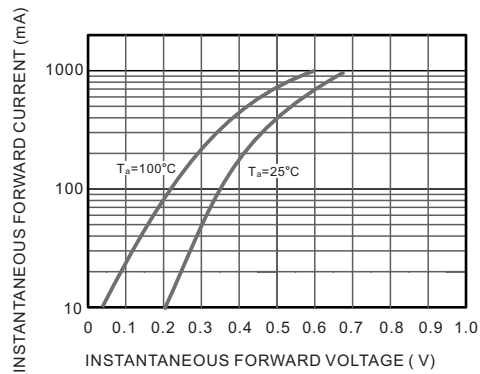
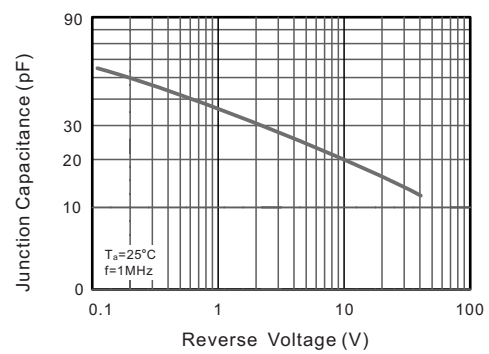
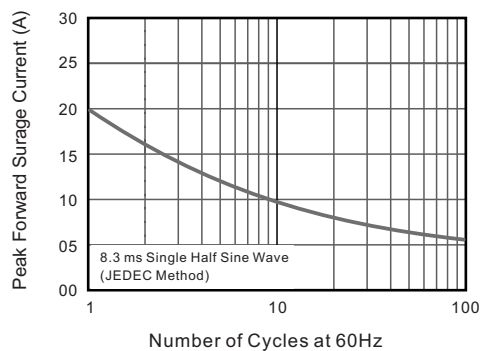


Dimensions in inches and (millimeters)

Absolute Maximum Ratings at 25 °C

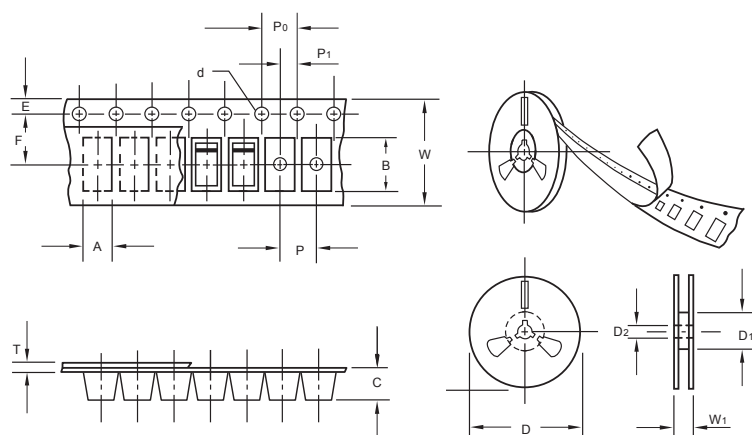
MDD Catalog Number	SYMBOLS	MBRX160	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	V
Maximum DC blocking voltage	V_{DC}	60	V
Continuous forward current	I_{AV}	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	20.0	A
Maximum instantaneous forward voltage at 1.0A	V_F	0.72	V
Maximum DC reverse current at rated DC blocking voltage	I_R	0.3	mA
Typical junction capacitance	C_J	30	pF
Junction temperature range	T_J	125	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Typical Characteristics

Fig.1 Forward Current Derating Curve

Fig.2 Typical Reverse Characteristics

Fig.3 TYPICAL FORWARD VOLTAGE

Fig.4 Typical Junction Capacitance

Fig.5 Maximum Non-Repetitive Peak Forward Surge Current


The curve above is for reference only.

Packing information



unit:mm

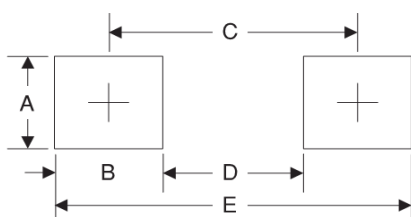
Item	Symbol	Tolerance	SOD-123
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	50.0
Feed hole diameter	D ₂	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P ₀	0.1	4.00
Embossment center	P ₁	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W ₁	1.0	10.5

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-123	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	9.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	3.2	0.126
D	2.0	0.079
E	4.4	0.173