EBRT3M40P

Excellent Schottky Barrier Rectifiers

SOD-123F

Primary Characteristics		
I_F	3	A
V_{RRM}	40	V
I_{FSM}	30	A
V_F	0.55	V
T_J max	150	°C

Features

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Low Forward Voltage
- RoHS Compliant Product

Mechanical Data

- Cases: SOD-123F
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.022 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
EBRT3M40P	General	SOD-123F	3000 / Tape & Reel
EBRT3M40P-H	Halogen Free		
EBRT3M40P-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	EBRT3M40P	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current	I_F	3.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0	A
Maximum Instantaneous Forward Voltage IF=3A @ 25°C	V_F	0.55	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	0.2 10	mA
Typical Junction Capacitance(NOTE1)	C_j	150	pF
Typical Thermal Resistance	$R_{\theta JC}$	30	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Marking Code		L4	

NOTES:

1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

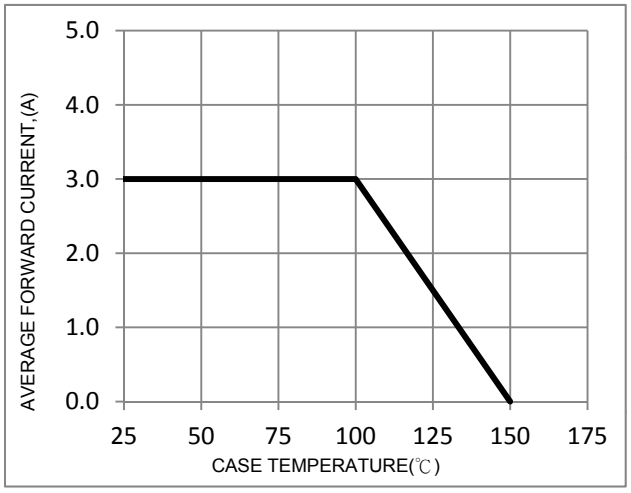


FIG. 2-Typical Forward Characteristics

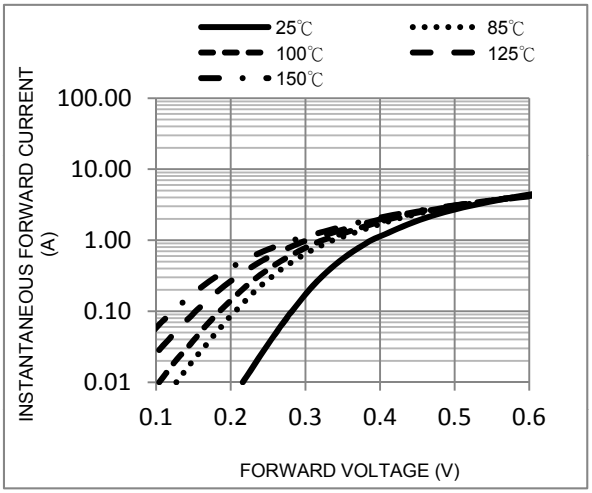


FIG. 3-Maximum Non-Repetitive Forward Surge Current

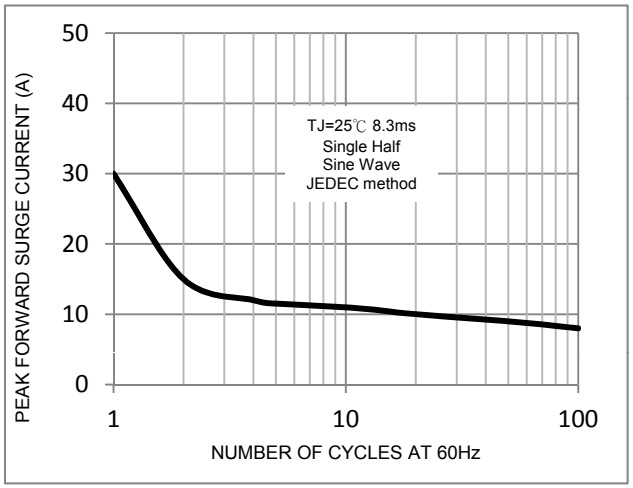


FIG. 4-Typical Reverse Characteristics

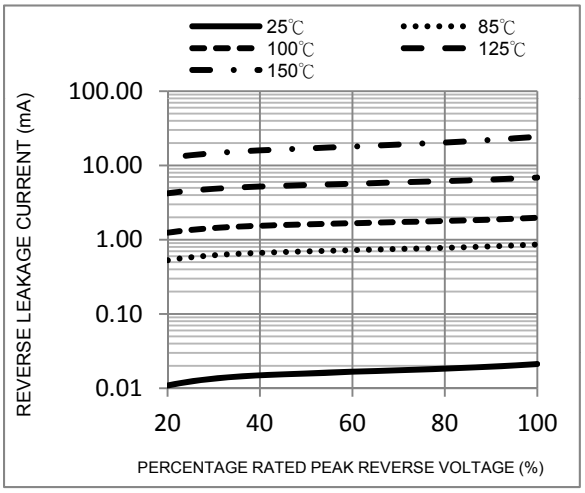
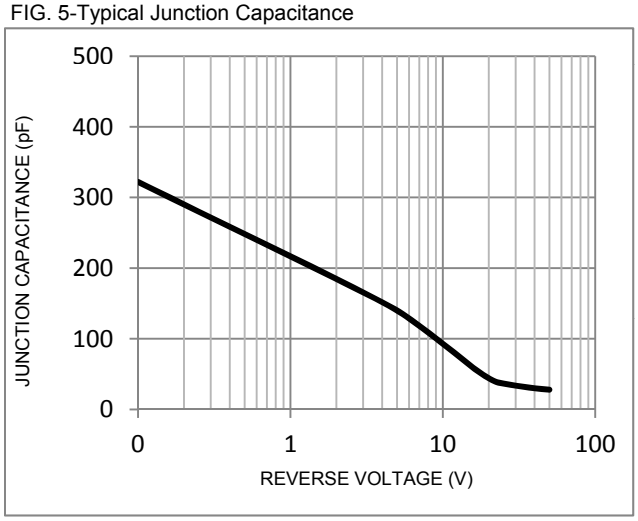


FIG. 5-Typical Junction Capacitance



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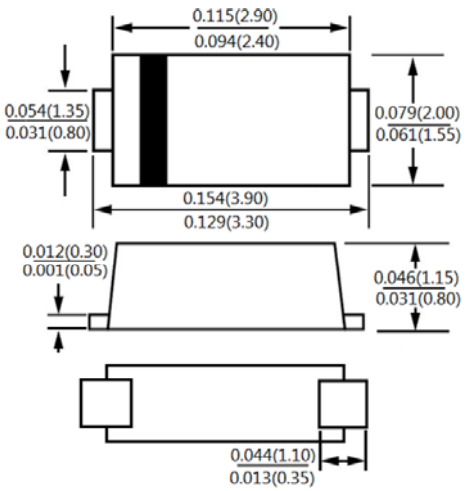
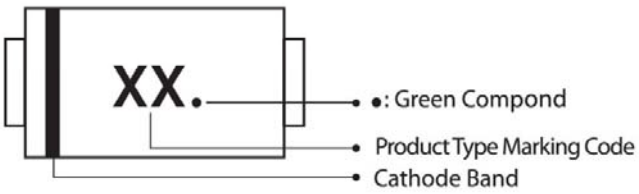
Package Outline Dimensions



SOD-123F

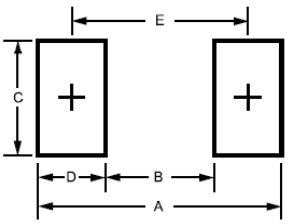
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

Dimension \ Outline	SOD-123F (mm)
A	4.20
B	1.52
C	1.80
D	1.34
E	2.86



Tap & Reel Specification

ITEM	SYMBOL	SOD-123F (mm)
Carrier width	A	3±0.1
Carrier length	B	5.6±0.1
Carrier depth	C	1.2±0.1
Sprocket hole	d	1.50±0.1
Reel outside diameter	D	330±2.0
Reel inner diameter	D1	13.5±1
Feed Hole diameter	D2	50 (min.)
Sprocket hole position	E	1.75±0.1
Punch hole position	F	5.5±0.05
Punch hole pitch	P	4.0±0.1
Sprocket hole pitch	P0	4.0±0.05
Embossment center	P1	2.0±0.05
Overall tape thickness	T	0.25±0.05
Tape width	W	12.0±0.2
Reel width	W1	18.4 (max)