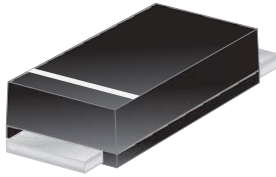




EBRT5E45P



Excellent Schottky Barrier Rectifiers



SOD-123F

Primary Characteristics

I_F	5	A
V_{RRM}	45	V
I_{FSM}	50	A
V_F	0.45	V
T_J max	150	°C

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)

Features

- High current capability
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC

Ordering Information

Part No.	Remark	Package	Packing
EBRT5E45P	General	SOD-123F	3000 / Tape & Reel
EBRT5E45P-H	Halogen Free		
EBRT5E45P-Q	AEC-Q101 qualified		

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

PARAMETER	SYMBOL	EBRT5E45P	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	31.5	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum average forward rectified current	I_F	5	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50	A
Maximum Instantaneous Forward Voltage IF=5A @ 25°C	V_F	0.45 Max.	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	0.2 15	mA
Typical Junction Capacitance(NOTE1)	C_j	350	pF
Typical Thermal Resistance	$R_{\theta JC}$	35	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Marking Code		X4	

NOTES:

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



Excellent Schottky Barrier Rectifiers

Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

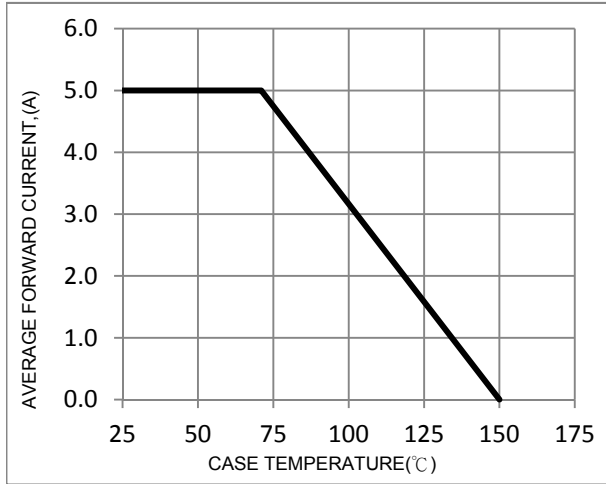


FIG. 2-Typical Forward Characteristics

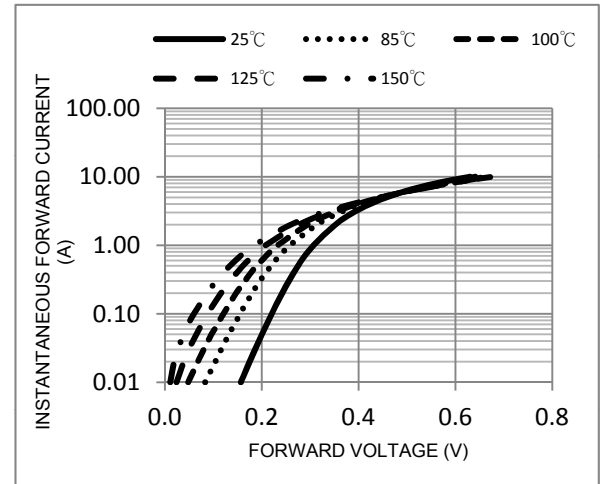


FIG. 3-Maximum Non-Repetitive Forward Surge Current

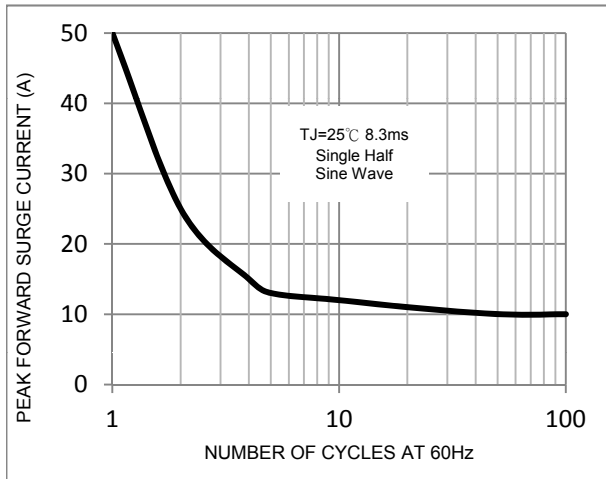


FIG. 4-Typical Reverse Characteristics

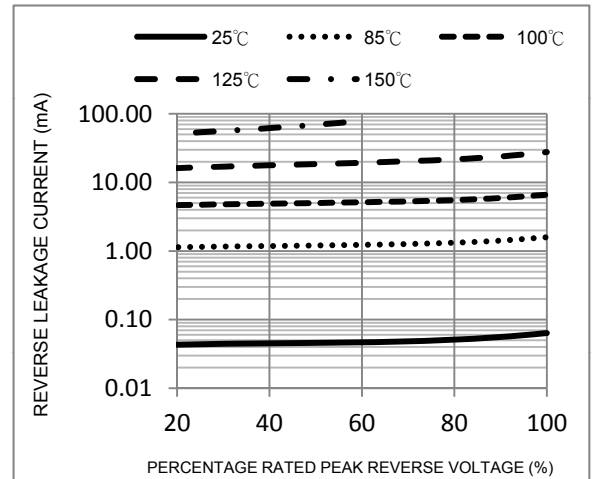
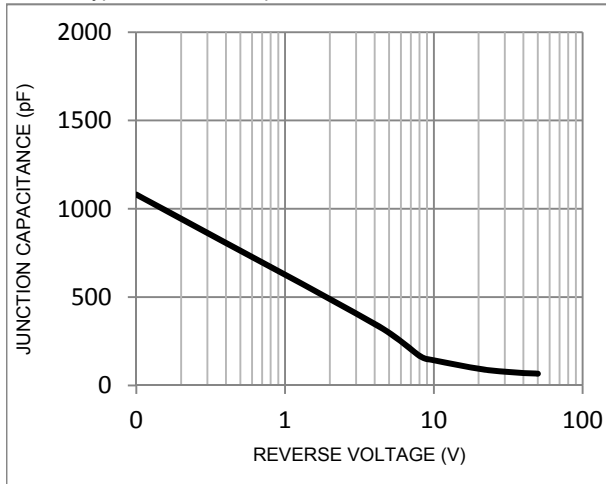


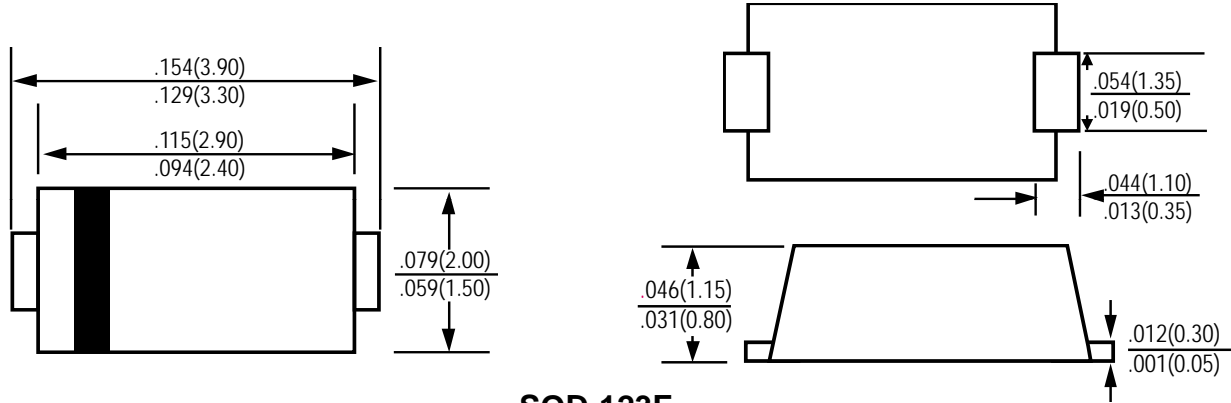
FIG. 5-Typical Junction Capacitance





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Barrier Rectifiers**

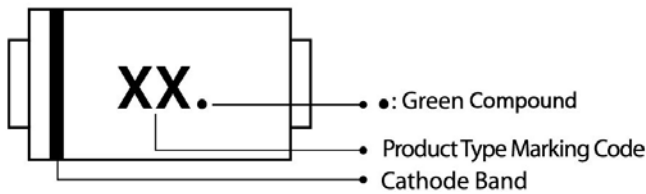
Package Outline Dimensions



SOD-123F

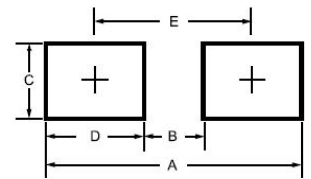
Dimensions in inches and (millimeters)

Marking Information



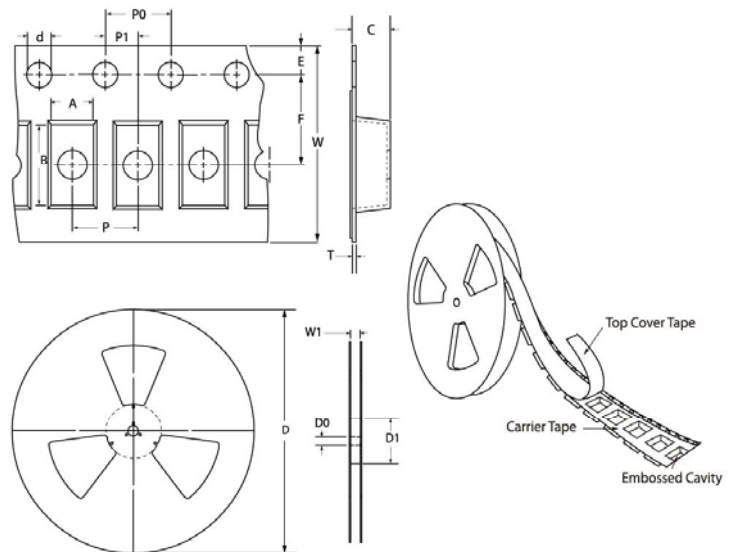
Suggested Pad Layout

Dimension	Outline	SOD-123F (mm)
A		4.25
B		1.52
C		1.80
D		1.34
E		2.86



Tape & Reel Specification

ITEM	SYMBOL	SOD-123F (mm)
Carrier width	A	2.05±0.1
Carrier length	B	4.01±0.1
Carrier depth	C	1.32±0.1
Sprocket hole	d	2.00±0.1
Reel outside diameter	D	178(max)
Reel inner diameter	D1	50(min)
Feed Hole diameter	D0	13.3±0.1
Sprocket hole position	E	1.75±0.1
Punch hole position	F	3.5±0.1
Punch hole pitch	P	4.0±0.1
Sprocket hole pitch	P0	4.0±0.1
Embossment center	P1	2.0±0.05
Overall tape thickness	T	0.24±0.03
Tape width	W	8.0±0.03
Reel width	W1	9.3±1





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