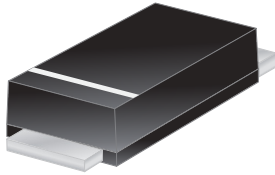




EBRT3E45AFC



Schottky Barrier Rectifiers



SMAF-S

Primary Characteristics

I_F	3	A
V_{RRM}	45	V
I_{FSM}	30	A
V_F	0.43	V
T_J max	150	°C

Features

- For surface mounted application
- Low forward voltage drop
- High current capability
- High reliability
- Classification Rating 94V- 0

Mechanical Data

- Case: Moeded plastic SMAF-S
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Cathode Band or Cathode Notch
- Mounting position: Any
- Making: Type Number

Ordering Information

Part No.	Remark	Package	Packing
EBRT3E45AFC	General	SMAF-S	10000 / Tape & Reel
EBRT3E45AFC-H	Halogen Free		
EBRT3E45AFC-Q	AEC-Q101 qualified		

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

PARAMETER	SYMBOL	EBRT3E45AFC	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	3	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage IF=3A @ 25 °C	V_F	Typ. 0.40 Max. 0.43	V
Maximum DC Reverse Current @ TA=25 °C at Rated DC Blocking Voltage @ TA=100 °C	I_R	0.5 15	mA
Typical Junction Capacitance(NOTE1)	C_j	300	pF
Typical Thermal Resistance	$R_{\theta JC}$	40	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Marking Code		T3E45AFC · 3E45AFC	

NOTES:

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



Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

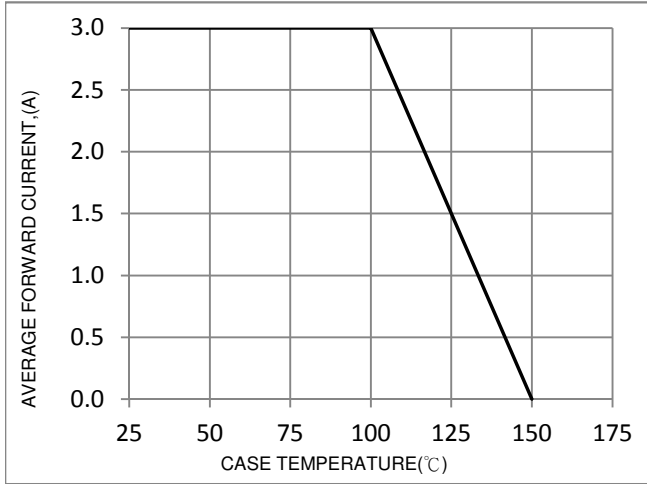


FIG. 2-Typical Forward Characteristics

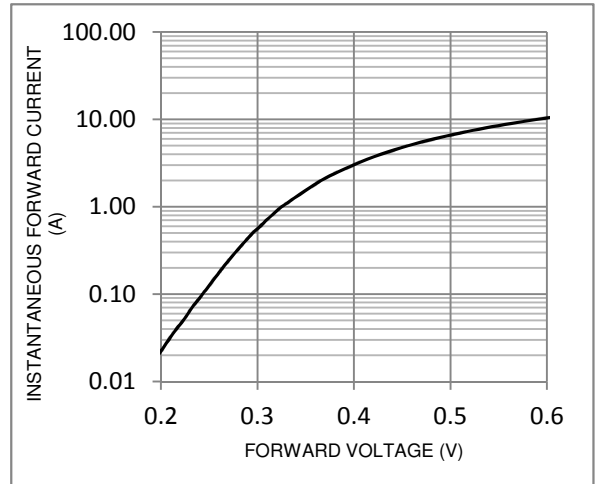


FIG. 3-Maximum Non-Repetitive Forward Surge Current

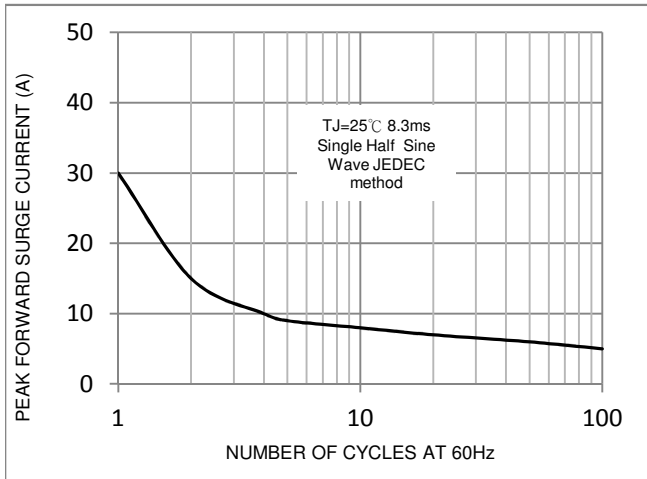


FIG. 4-Typical Reverse Characteristics

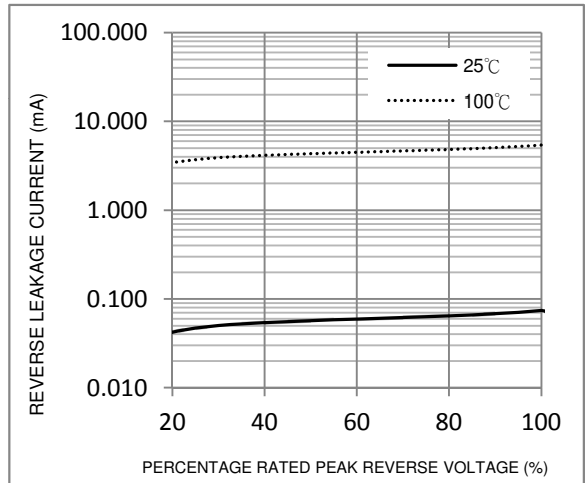
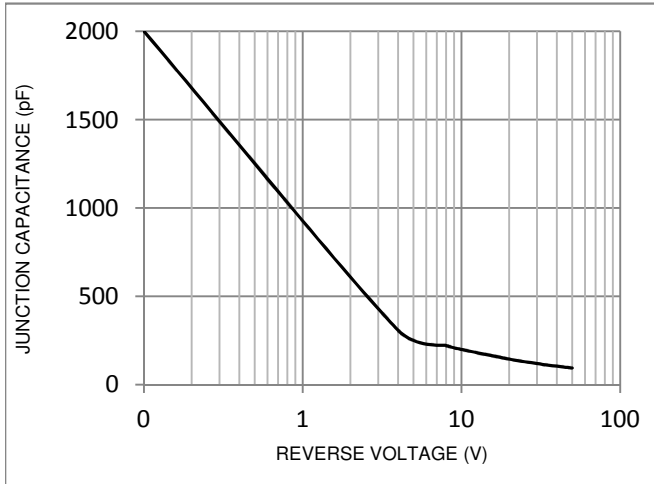
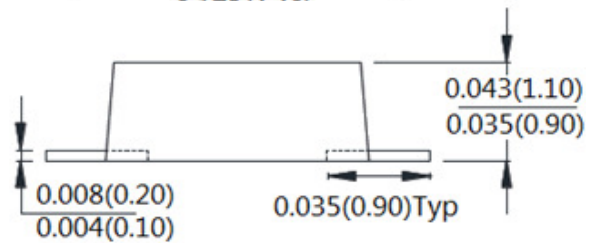
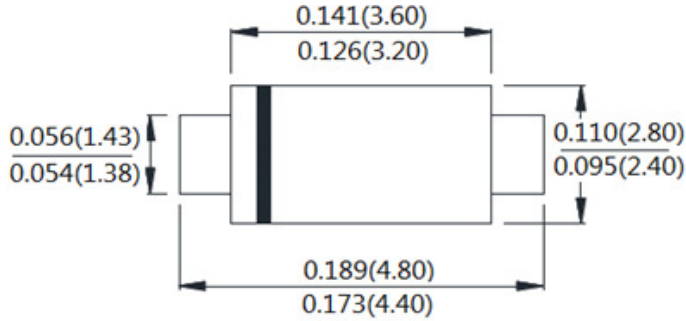


FIG. 5-Typical Junction Capacitance





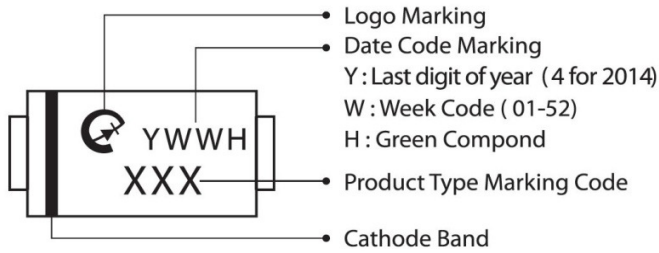
Package Outline Dimensions



SMAF-S

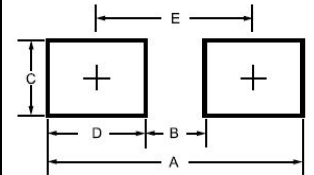
Dimensions in inches and (millimeters)

Marking Information



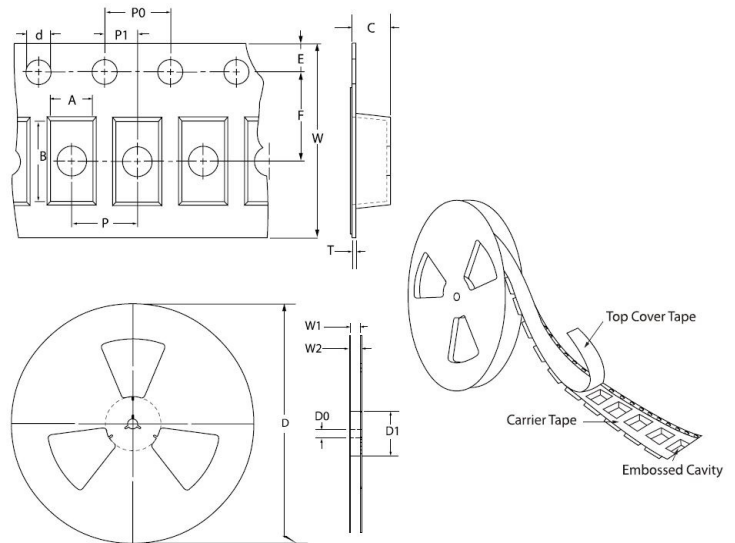
Suggested Pad Layout

Dimension	Outline	SMAF-S (mm)
A		5.40
B		2.20
C		1.50
D		1.60
E		-



Tap & Reel Specification

Item	Symbol	Dimension
		Unit (mm)
Carrier width	A	2.83 ±0.1
Carrier length	B	4.75 ±0.1
Carrier depth	C	1.42 ±0.1
Sprocket hole	d	1.55 ±0.05
Reel outside diameter	D	330 ±1.0
Feed hole diameter	D0	13+0.5/-0
Reel inner diameter	D1	100 ±0.5
Sprocket hole position	E	1.75 ±0.1
Punch hole position	F	5.5 ±0.05
Sprocket 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	0.25 ±0.05
Tape width	W	12.4+0.5/-0
Reel width	W1	18.4Max.





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