



# EBRT8M45B



## Excellent Schottky Barrier Rectifiers



DO-214AA(SMB)

### Primary Characteristics

$I_F$	8	A
$V_{RRM}$	45	V
$I_{FSM}$	50	A
$V_F$	0.53	V
$T_J \text{ max}$	150	°C

### Features

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

### Mechanical Data

- Case: DO-214AA(SMB)
- 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: 0.092 grams (approximate)

### Ordering Information

Part No.	Remark	Package	Packing
EBRT8M45B	General	SMB	3000 / Tape & Reel
EBRT8M45B-H	Halogen Free		
EBRT8M45B-Q	AEC-Q101 qualified		

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

PARAMETER	SYMBOL	EBRT8M45B	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	$I_F$	8	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50	A
Maximum Instantaneous Forward Voltage $I_F=8A @ 25^\circ C$	$V_F$	0.53	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	$I_R$	0.5 20	mA
Typical Junction Capacitance (NOTE1)	$C_j$	600	pF
Typical Thermal Resistance (NOTE2)	$R_{\theta JC}$	15	°C/W
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C
Marking Code		T8M45B	

#### NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
2. The heat sink are dimensioned as 40\*70mm



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### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

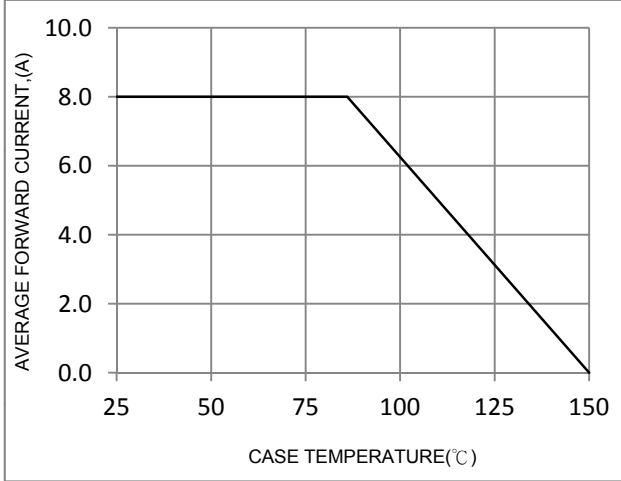


FIG. 2-Typical Forward Characteristics

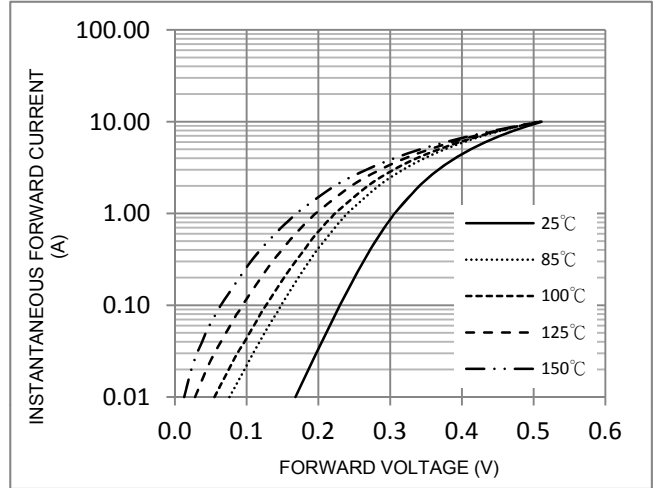


FIG. 3-Maximum Non-Repetitive Forward Surge Current

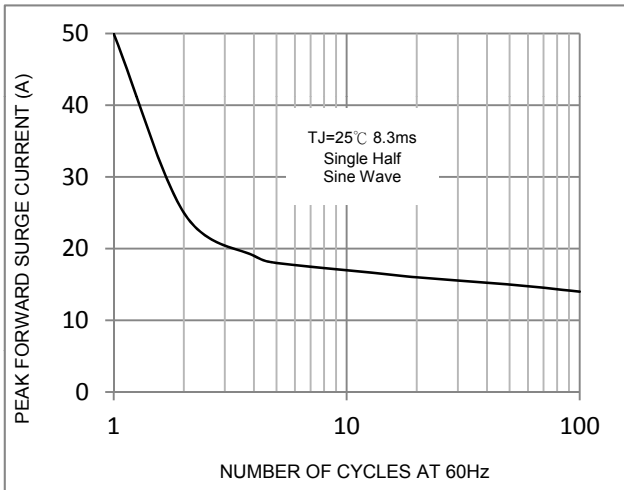


FIG. 4-Typical Reverse Characteristics

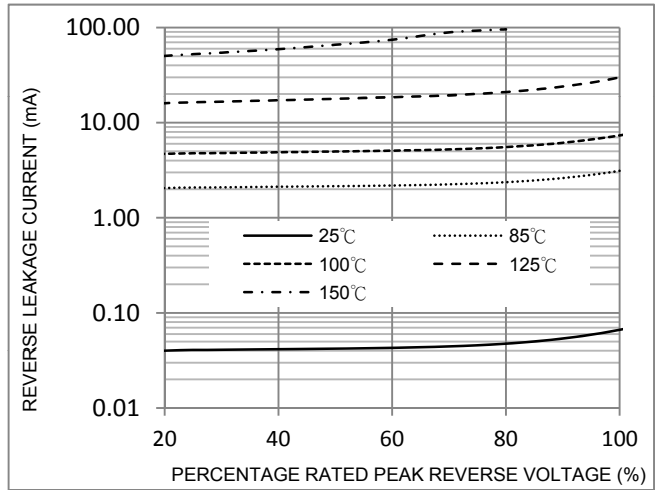
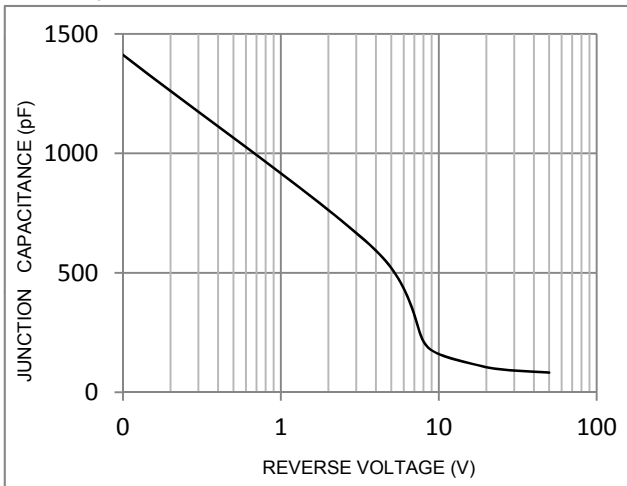
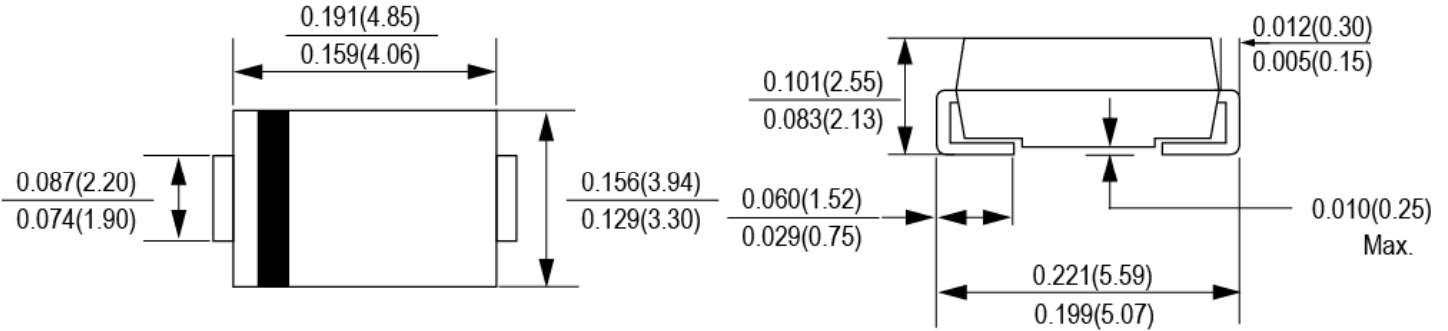


FIG. 5-Typical Junction Capacitance





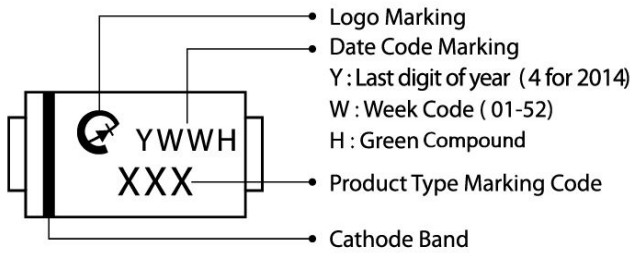
**Package Outline Dimensions**



**DO-214AA(SMB)**

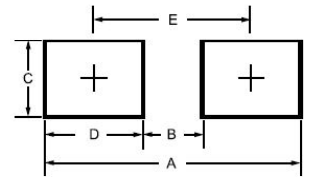
Dimensions in inches and (millimeters)

**Marking Information**



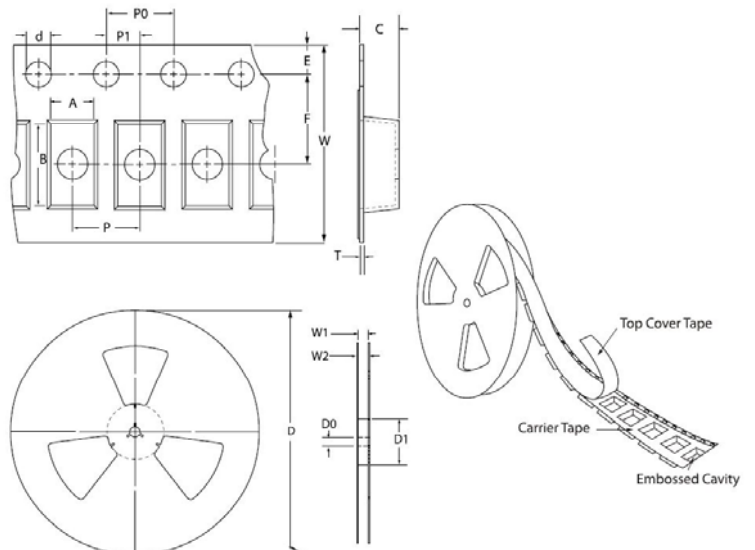
**Suggested Pad Layout**

Outline Dimension(mm)	SMB (DO-214AA)
A	6.80
B	1.80
C	2.92
D	2.50
E	4.30



**Tap & Reel Specification**

ITEM	SYMBOL	SMB(mm) DO-214AA
Carrier width	A	4.0(max)
Carrier length	B	5.9(max)
Carrier depth	C	3.0(max)
Sprocket hole	d	1.50±0.1
Reel outside diameter	D	330±2.0
Feed hole diameter	D0	13.5±1
Reel inner diameter	D1	50 (min.)
Sprocket hole position	E	1.75±0.1
Punch hole position	F	5.5±0.05
Sprocket hole pitch	P	8.0±0.1
Sprocket hole pitch	Po	4.0±0.1
Embossment center	P1	2.0±0.05
Overall tape thickness	T	0.6 (max)
Tape width	W	12.0±0.3
Reel width	W2	18.4 (max)
Reel width	W1	14.4 (max)





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