



EBRT5E150B



Schottky Barrier Rectifiers



DO-214AA(SMB)

Features

- High current capability
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

Ordering Information

Part No.	Package	Packing
EBRT5E150B	SMB	3000 / Tape & Reel

Device P/N

Part Number	Remark
EBRT5E150B	General
EBRT5E150B-H	Halogen Free
EBRT5E150B-Q	Automotive

Primary Characteristics

I_F	5	A
V_{RRM}	150	V
I_{FSM}	150	A
V_F	0.75	V
$T_J \text{ max}$	150	°C

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)

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

PARAMETER	SYMBOL	EBRT5E150B	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	105	V
Maximum DC blocking voltage	V_{DC}	150	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}	150	A
Maximum Instantaneous Forward Voltage $I_F=5A @ 25^\circ C$	V_F	0.75	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	0.5 10	mA
Typical Junction Capacitance(NOTE1)	C_j	720	pF
Typical Thermal Resistance	$R_{\theta Ja}$ $R_{\theta Jc}$	80 50	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Marking Code		T5E150B	

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

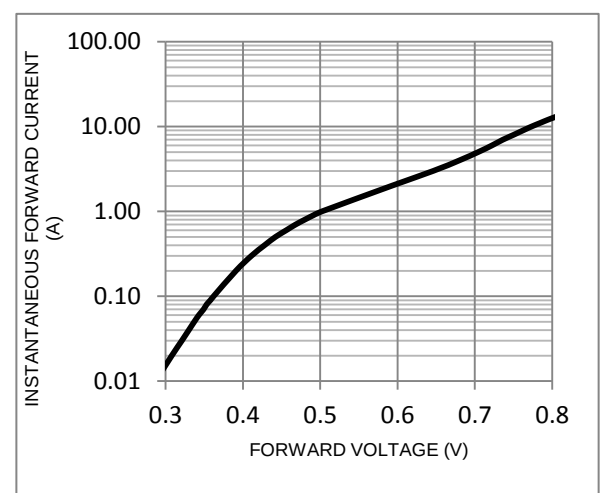


FIG. 3-Maximum Non-Repetitive Forward Surge Current

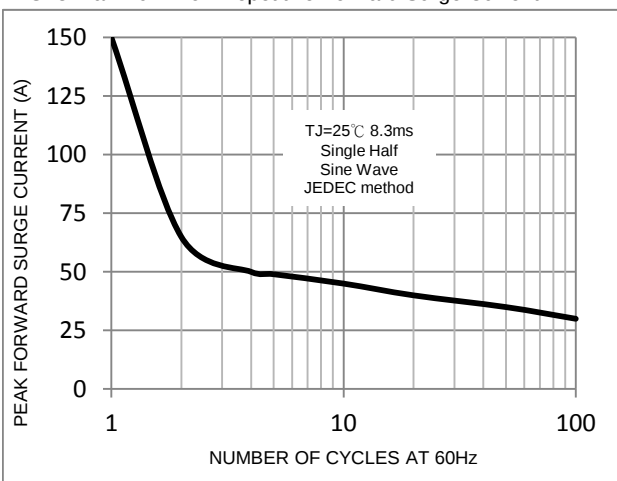


FIG. 4-Typical Reverse Characteristics

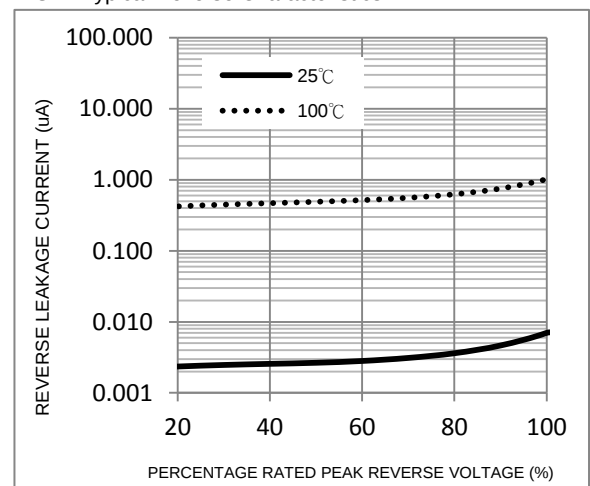
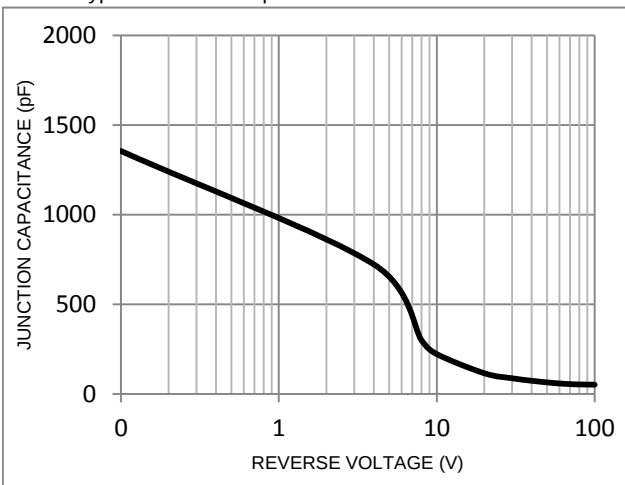


FIG. 5-Typical Junction Capacitance



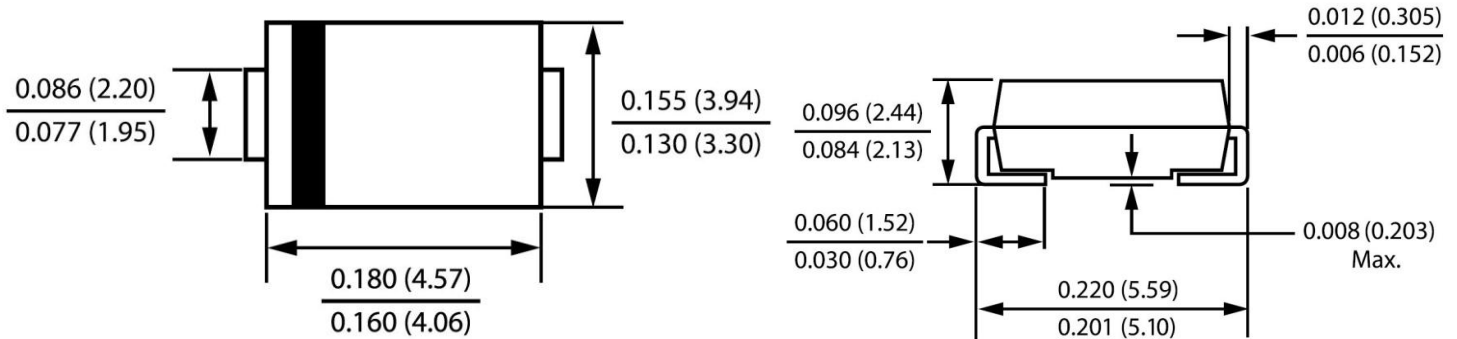


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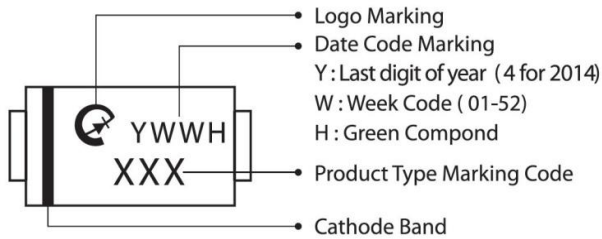
Package Outline Dimensions



DO-214AA(SMB)

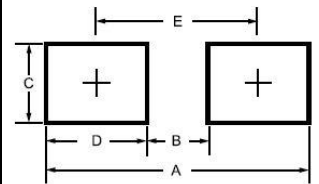
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

Dimension	Outline	SMB (DO-214AA)
A		6.80
B		1.80
C		2.30
D		2.50
E		4.30



Tape & 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	P0	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)

