

**EBRT3E100A**

Excellen Schottky Barrier Rectifiers

**DO-214AC(SMA)**

Features

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

Primary Characteristics

I_F	3	A
V_{RRM}	100	V
I_{FSM}	80	A
V_F	0.6	V
$T_J \text{ max}$	150	°C

Mechanical Data

- Case: DO-214AC(SMA)
- 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: 0.062 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
EBRT3E100A	General	SMA	5000 / Tape & Reel
EBRT3E100A-H	Halogen Free		
EBRT3E100A-Q	AEC-Q101 qualified		

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

PARAMETER	SYMBOL	EBRT3E100A	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	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}	80	A
Maximum Instantaneous Forward Voltage $I_F=3A$ @ 25°C	V_F	0.54 Typ. 0.60 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	400	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		T3E100A	

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

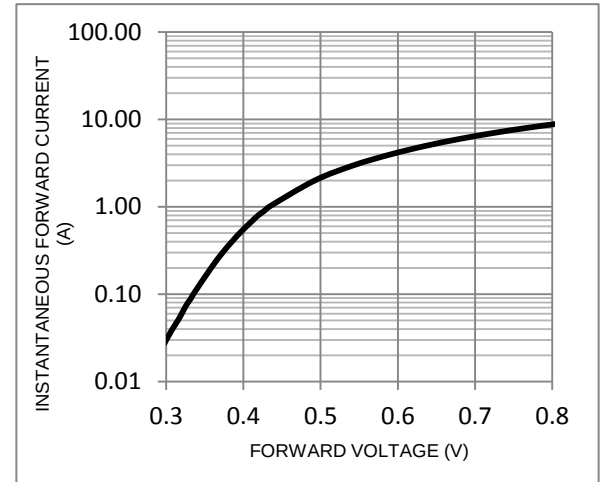


FIG. 3-Maximum Non-Repetitive Forward Surge Current

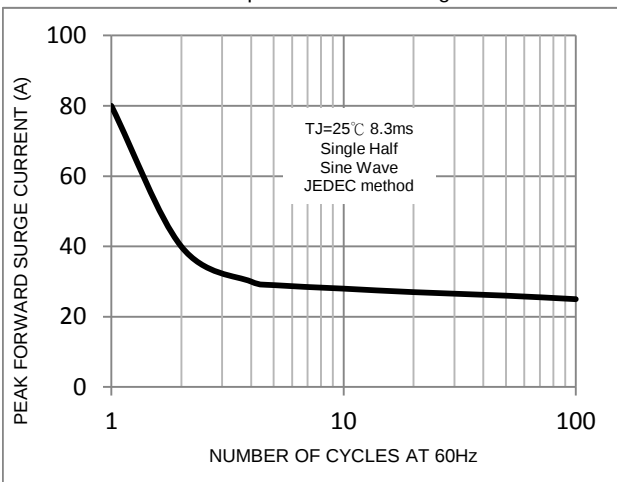


FIG. 4-Typical Reverse Characteristics

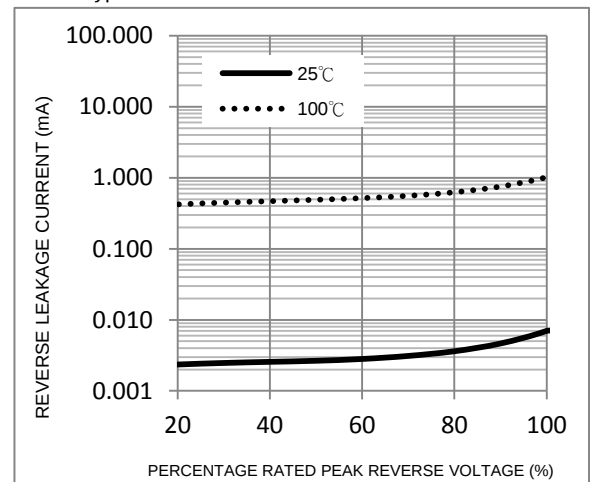
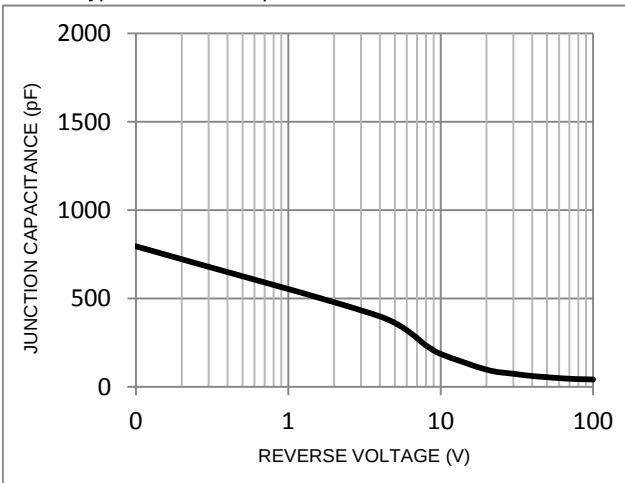


FIG. 5-Typical Junction Capacitance



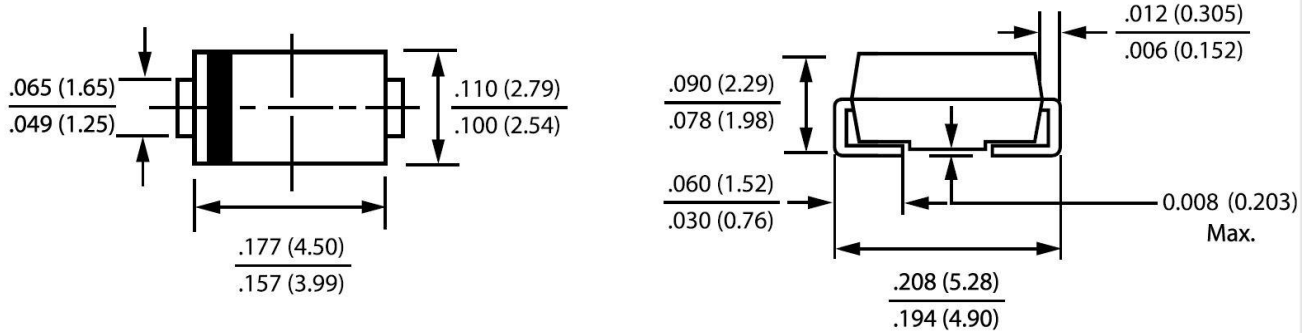


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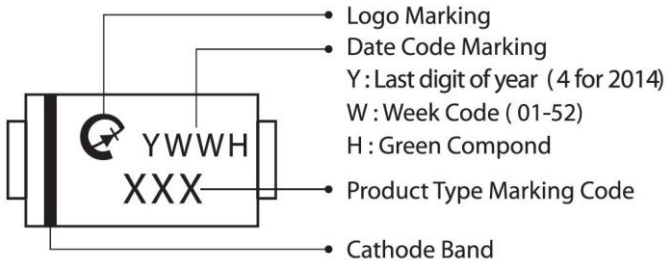
Package Outline Dimensions



DO-214AC(SMA)

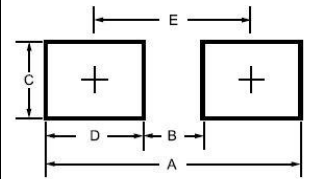
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

Outline Dimension	SMA (DO-214AC)
A	6.50
B	1.50
C	1.70
D	2.50
E	4.00



Tape & Reel Specification

ITEM	SYMBOL	SMA(mm) DO-214AC
Carrier width	A	2.9(max)
Carrier length	B	5.9(max)
Carrier depth	C	2.66(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	4.0±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)

