



# T5E150B



## 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
T5E150B	SMB	3000 / Tape & Reel

### Device P/N

Part Number	Remark
T5E150B	General
T5E150B-H	Halogen Free
T5E150B-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	T5E150B	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

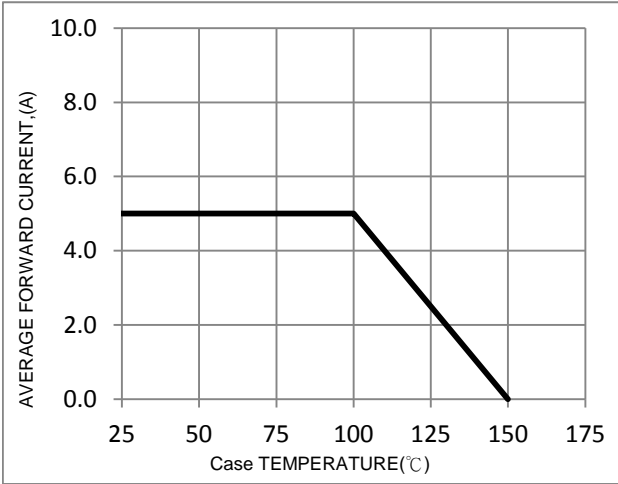


FIG. 2-Typical Forward Characteristics

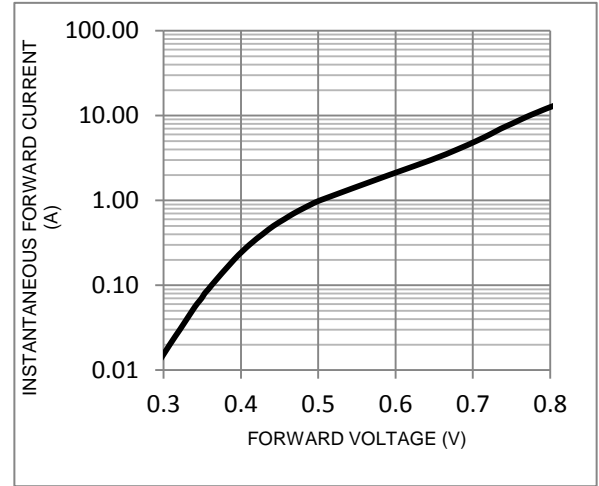


FIG. 3-Maximum Non-Repetitive Forward Surge Current

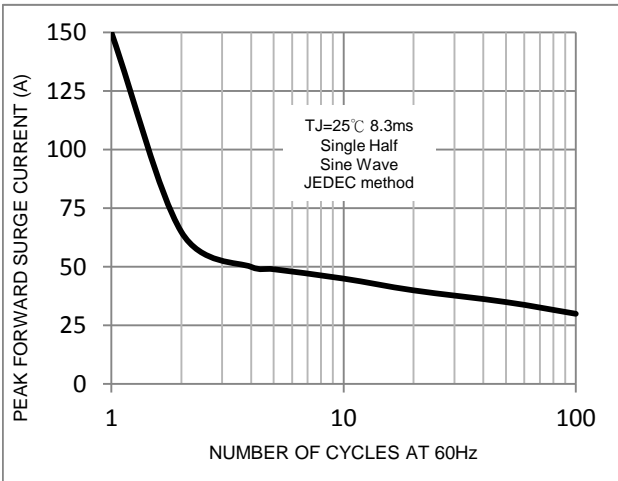


FIG. 4-Typical Reverse Characteristics

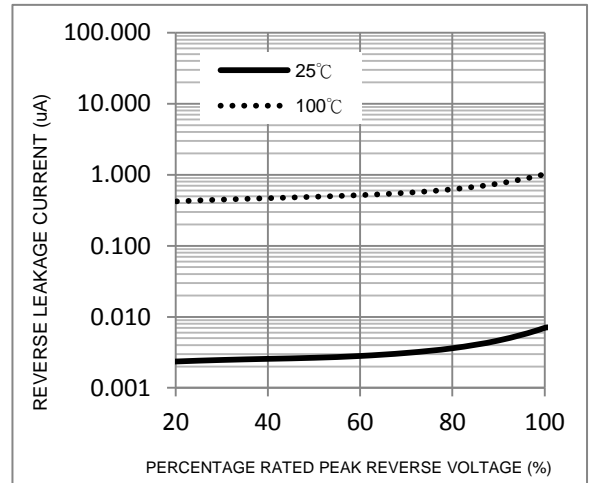
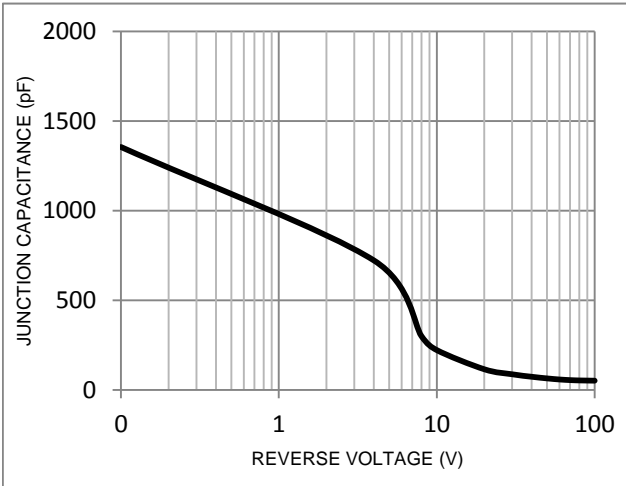
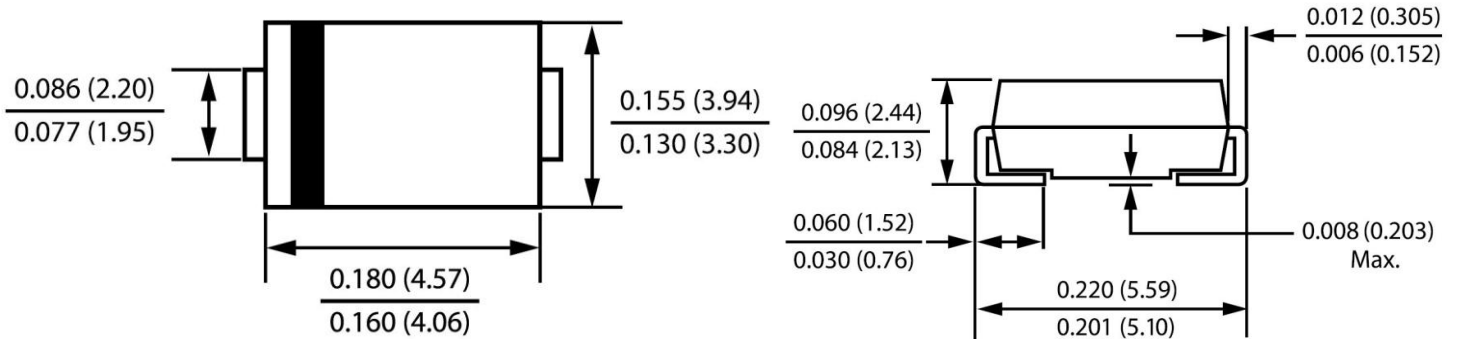


FIG. 5-Typical Junction Capacitance



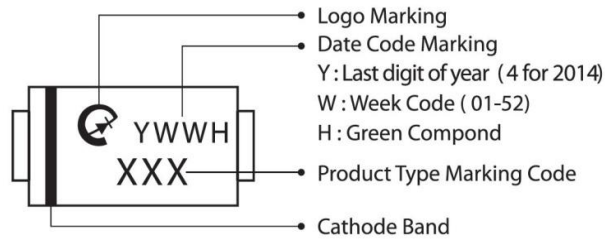
### Package Outline Dimensions



### DO-214AA(SMB)

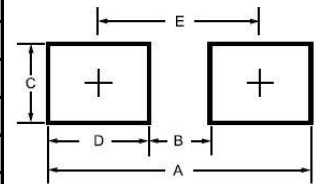
Dimensions in inches and (millimeters)

### 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	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)

