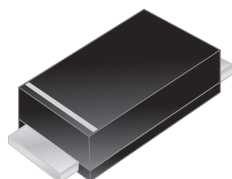


## Excellent Schottky Barrier Rectifiers



**SOD-123F**

Primary Characteristics		
$I_F$	3	A
$V_{RRM}$	45	V
$I_{FSM}$	30	A
$V_F$	0.43	V
$T_J \text{ max}$	150	°C

Features
<ul style="list-style-type: none"> <li>• Ideal for surface mount applications</li> <li>• Easy pick and place</li> <li>• Built-in strain relief</li> <li>• Fast switching speed</li> </ul>

Mechanical Data
• Cases: SOD-123F
• 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: 0.022 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
T3E45L	General	SOD-123F	3000 / Tape & Reel
T3E45L-H	Halogen Free		
T3E45L-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)			
PARAMETER	SYMBOL	T3E45L	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	$I_F$	3.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30.0	A
Maximum Instantaneous Forward Voltage IF=3A @ 25°C	$V_F$	0.43	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	$I_R$	0.5 25	mA
Typical Junction Capacitance(NOTE1)	$C_j$	355	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		T34	

**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

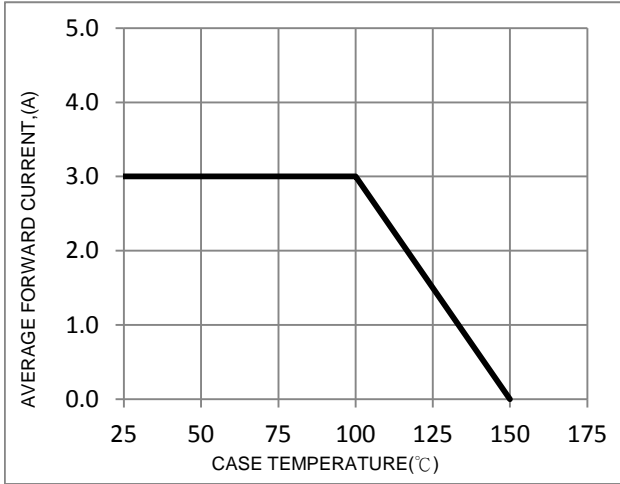


FIG. 2-Typical Forward Characteristics

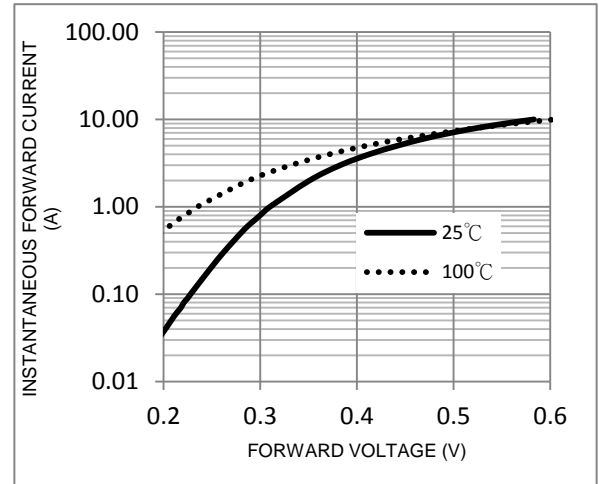


FIG. 3-Maximum Non-Repetitive Forward Surge Current

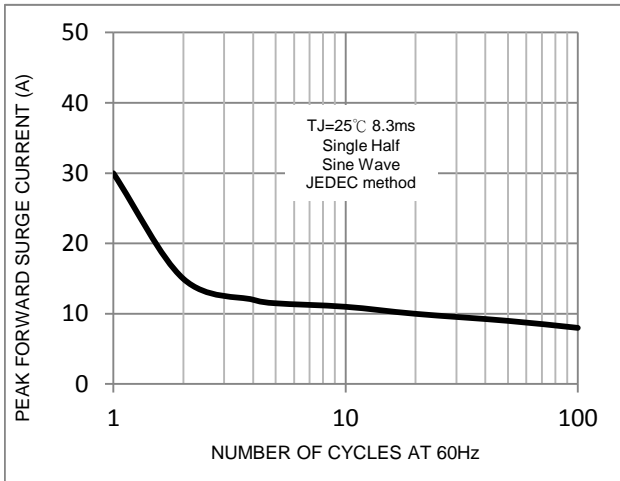


FIG. 4-Typical Reverse Characteristics

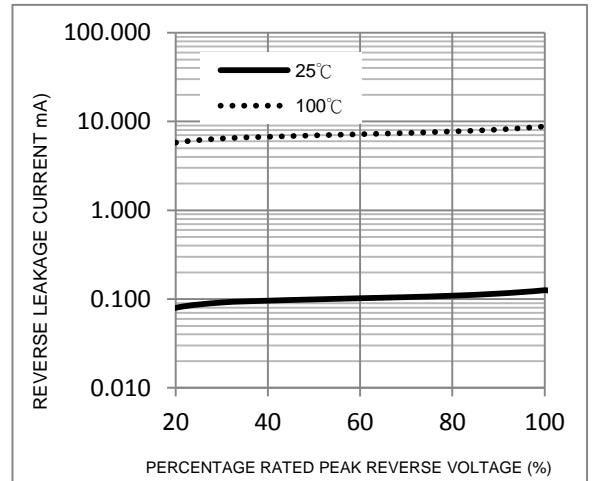
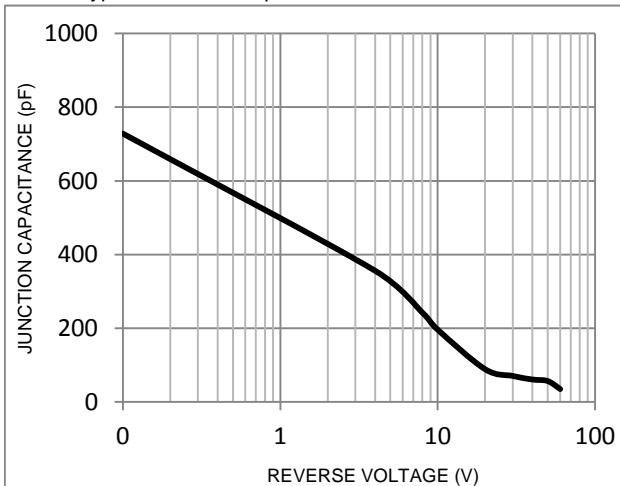
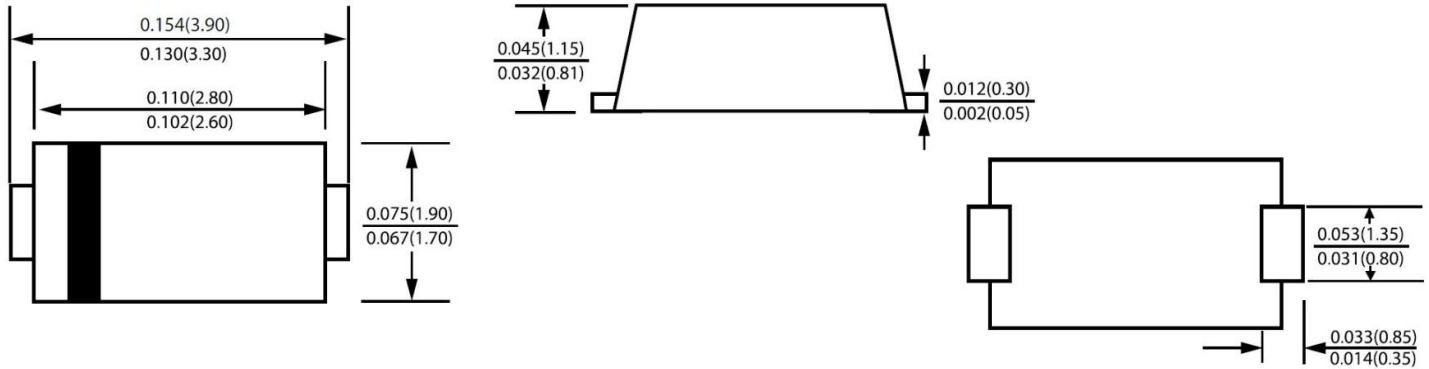


FIG. 5-Typical Junction Capacitance



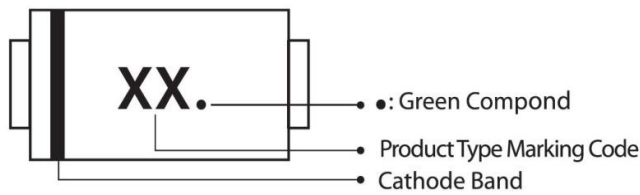
### Package Outline Dimensions



### SOD-123F

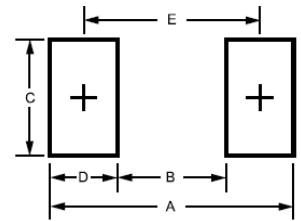
Dimensions in inches and (millimeters)

### Marking Information



### Suggested Pad Layout

Dimension	Outline	SOD-123F (mm)
A		4.20
B		1.52
C		1.80
D		1.34
E		2.86



### Tape & Reel Specification

ITEM	SYMBOL	SOD-123F (mm)
Carrier width	A	3±0.1
Carrier length	B	5.6±0.1
Carrier depth	C	1.2±0.1
Sprocket hole	d	1.50±0.1
Reel outside diameter	D	330±2.0
Reel inner diameter	D1	13.5±1
Feed Hole diameter	D2	50 (min.)
Sprocket hole position	E	1.75±0.1
Punch hole position	F	5.5±0.05
Punch hole pitch	P	4.0±0.1
Sprocket hole pitch	P0	4.0±0.05
Embossment center	P1	2.0±0.05
Overall tape thickness	T	0.25±0.05
Tape width	W	12.0±0.2
Reel width	W1	18.4 (max)

