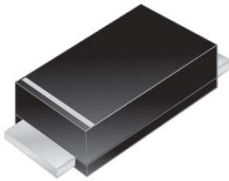




# ERS220P thru ERS2200P



## Schottky Barrier Rectifiers



SOD-123F

### Primary Characteristics

$I_F$	2	A
$V_{RRM}$	20~200	V
$I_{FSM}$	40	A
$V_F$	0.52、0.66、0.83、0.87、0.90	V
$T_J \text{ max}$	125、150	°C

### Features

- Ideal for Surface Mount Applications
- Easy Pick and Place
- Built-In Strain Relief
- Fast Switching Speed

### 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
- External Lead-Free Finish
- Weight : 0.015 grams (approximate)

### Ordering Information

Part No.	Remark	Package	Packing
ERS2xxxP	RoHS Compliant	SOD-123F	3000 / Tape & Reel
ERS2xxxP-H	Halogen Free		
ERS2xxxP-Q	AEC-Q101 qualified		

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

Parameter	Symbol	ERS 220P	ERS 230P	ERS 240P	ERS 260P	ERS 280P	ERS 2100P	ERS 2150P	ERS 2200P	Unit	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	60	80	100	150	200	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	42	56	70	105	140	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	60	80	100	150	200	V	
Maximum Average Forward Rectified Current	$I_F$	2.0								A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	40.0								A	
Maximum Instantaneous Forward Voltage IF=2A @ 25°C	$V_F$	0.52		0.66		0.83		0.87、0.90		V	
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	$I_R$	0.5 30				0.2 15				mA	
Typical Junction Capacitance (NOTE1)	$C_j$	117			93		60		38、31		pF
Typical Thermal Resistance	$R_{\theta JC}$	43								°C/W	
Operating Temperature Range	$T_J$	-55 to +125				-55 to +150				°C	
Storage Temperature Range	$T_{STG}$	-55 to +150								°C	
Marking Code		T2	T3	T4	T6	T8	TA	TB	TC		

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

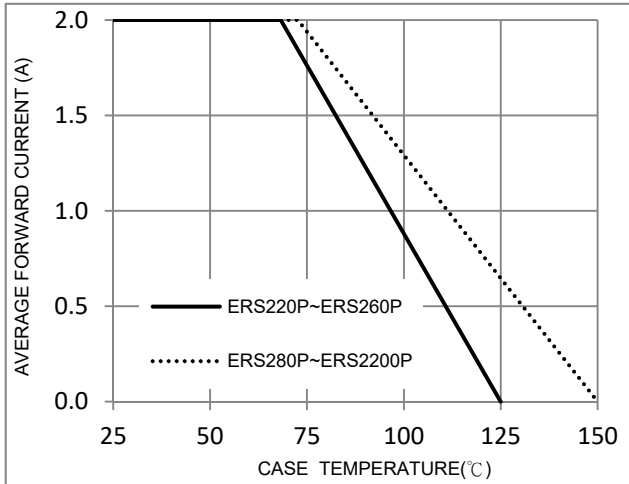


FIG. 2-Typical Forward Characteristics

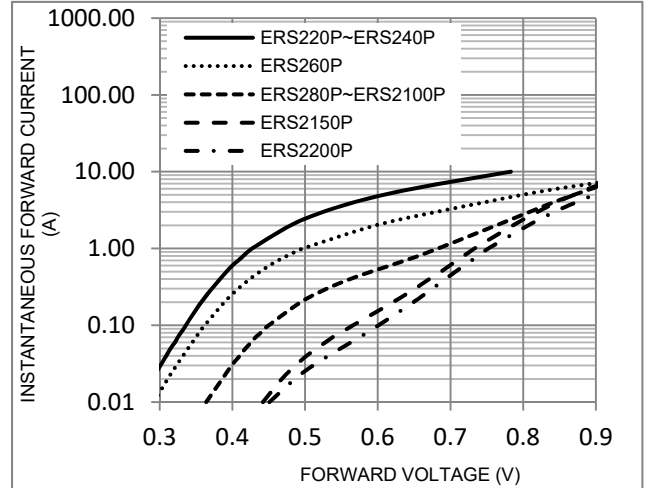


FIG. 3-Maximum Non-Repetitive Forward Surge Current

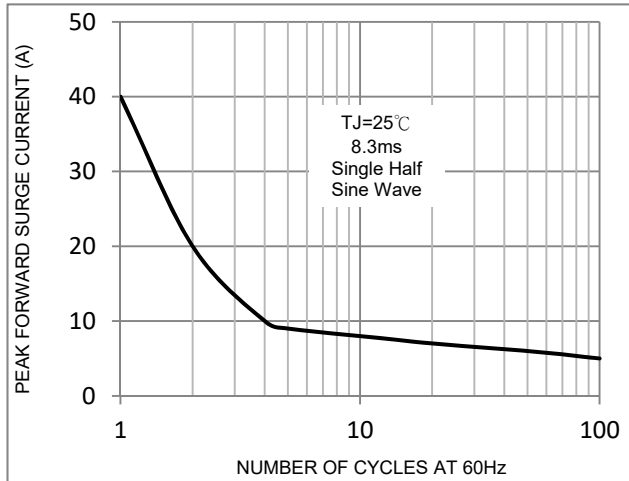


FIG. 4-Typical Reverse Characteristics

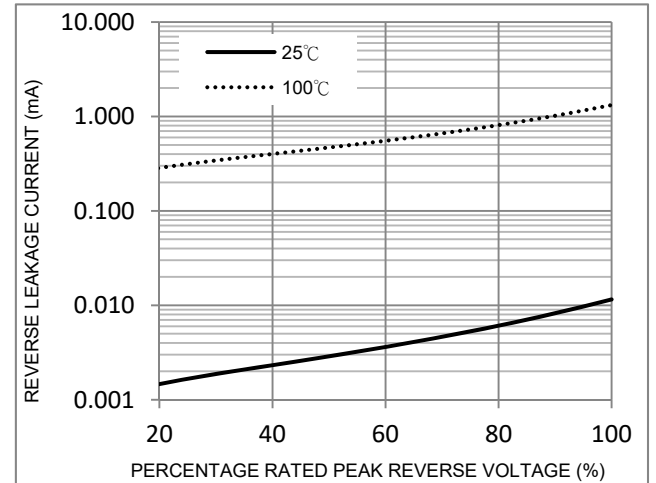
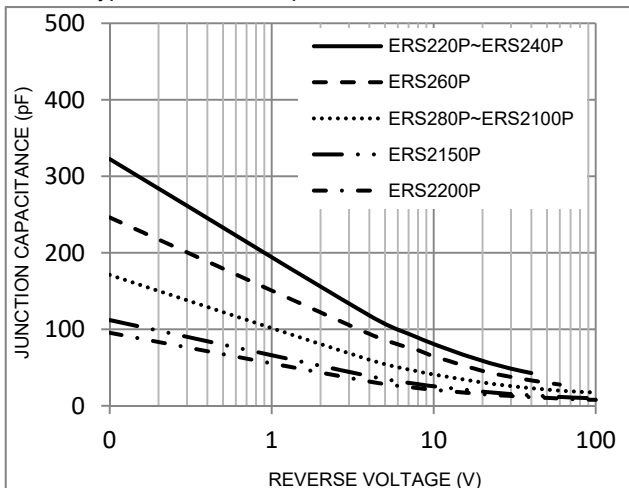
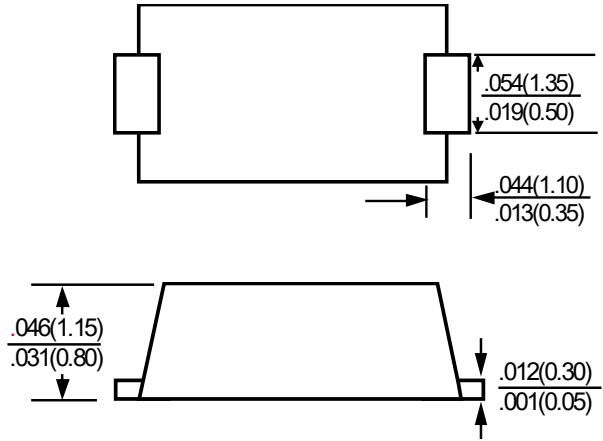
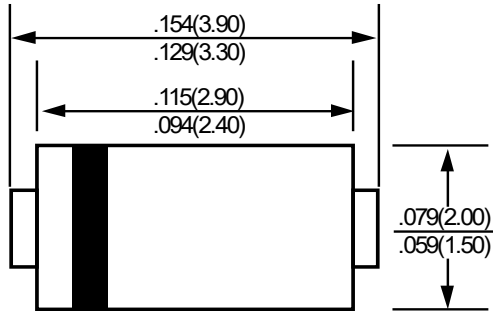


FIG. 5-Typical Junction Capacitance





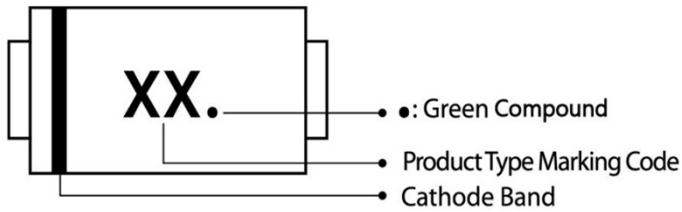
Package Outline Dimensions



SOD-123F

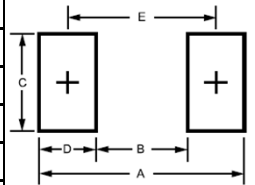
Dimensions in inches and (millimeters)

Marking Information



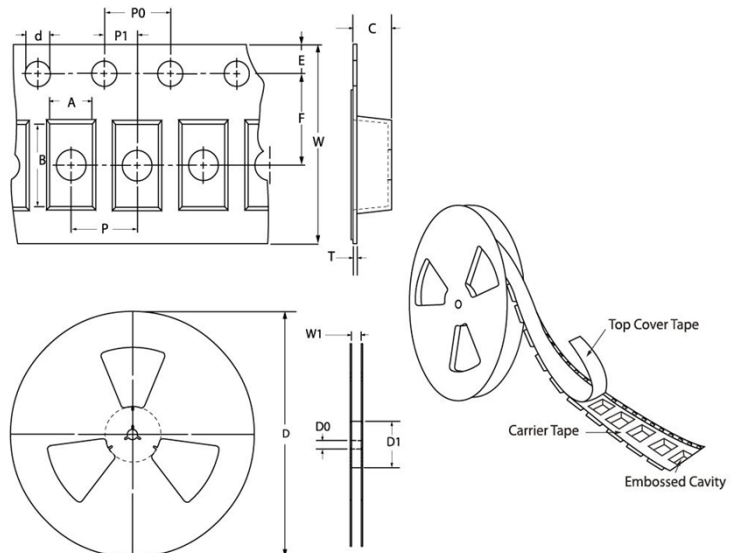
Suggested Pad Layout

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	2.05 ± 0.1
Carrier length	B	4.01 ± 0.1
Carrier depth	C	1.32 ± 0.1
Sprocket hole	d	2.00 ± 0.1
Reel outside diameter	D	178 (max)
Reel inner diameter	D1	50 (min)
Feed Hole diameter	D0	13.3 ± 0.1
Sprocket hole position	E	1.75 ± 0.1
Punch hole position	F	3.5 ± 0.1
Punch 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	0.24 ± 0.03
Tape width	W	8.0 ± 0.03
Reel width	W1	9.3 ± 1





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