



ERS120P thru ERS1200P



Schottky Barrier Rectifiers



SOD-123F

Primary Characteristics

I_F	1	A
V_{RRM}	20~200	V
I_{FSM}	30	A
V_F	0.52、0.66、0.83、0.87、0.90	V
T_J max	125、150	°C

Features

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Low Forward Voltage
- RoHS Compliant Product

Mechanical Data

- Case : 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
ERS1x0P	RoHS Compliant	SOD-123F	3000 / Tape & Reel
ERS1x0P-H	Halogen Free		
ERS1x0P-Q	AEC-Q101 qualified		

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

Parameter	Symbol	ERS 120P	ERS 130P	ERS 140P	ERS 160P	ERS 180P	ERS 1100P	ERS 1150P	ERS 1200P	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	1.0								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=1A @ 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 20						0.2 10		mA
Typical Junction Capacitance(NOTE1)	C_j	60				25				pF
Typical Thermal Resistance	$R_{\theta JC}$	45								°C/W
Operating Temperature Range	T_J	-50 ~ 125				-50 ~ 150				°C
Storage Temperature Range	T_{STG}	-55 ~ 150								°C
Marking Code		C2	C3	C4	C6	C8	CA	CB	CC	

NOTES :

1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.



Schottky Barrier Rectifiers

Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

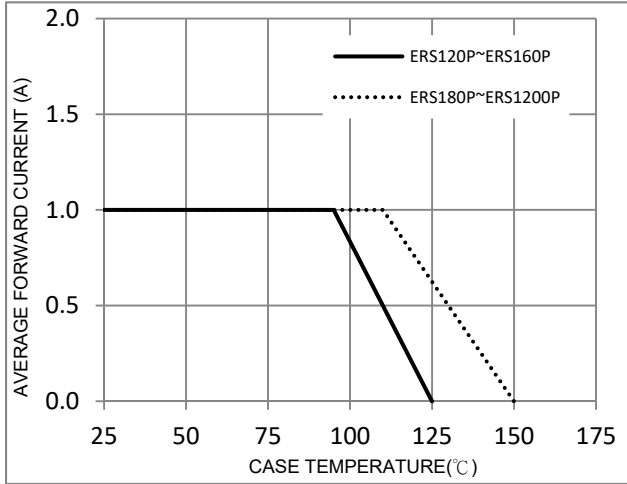


FIG. 2-Typical Forward Characteristics

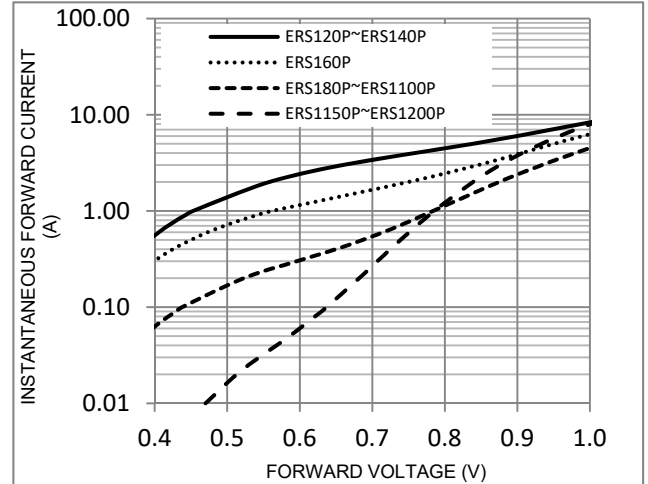


FIG. 3-Maximum Non-Repetitive Forward Surge Current

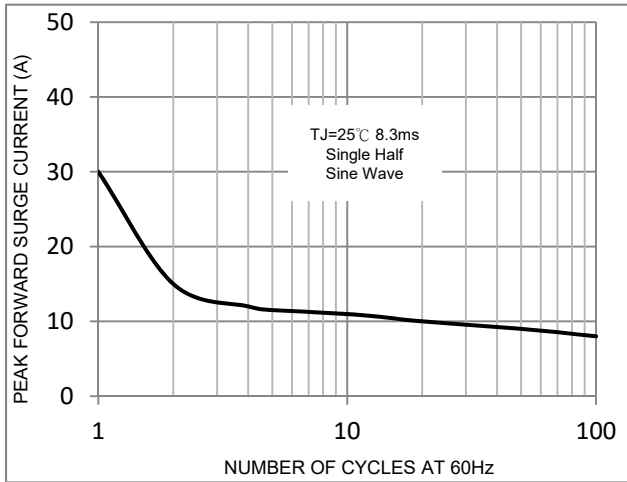


FIG. 4-Typical Reverse Characteristics

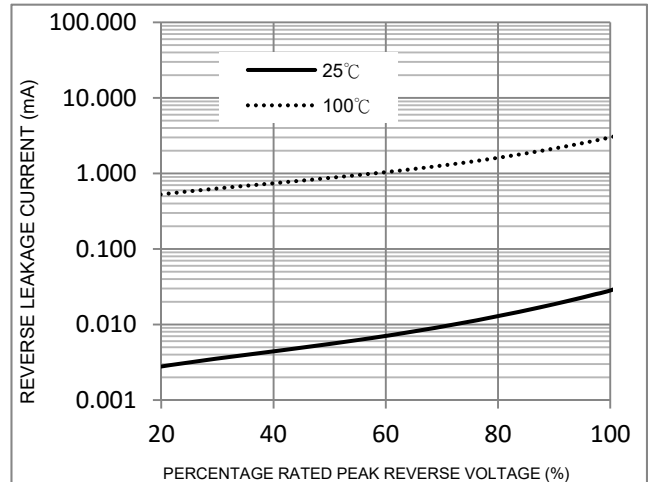
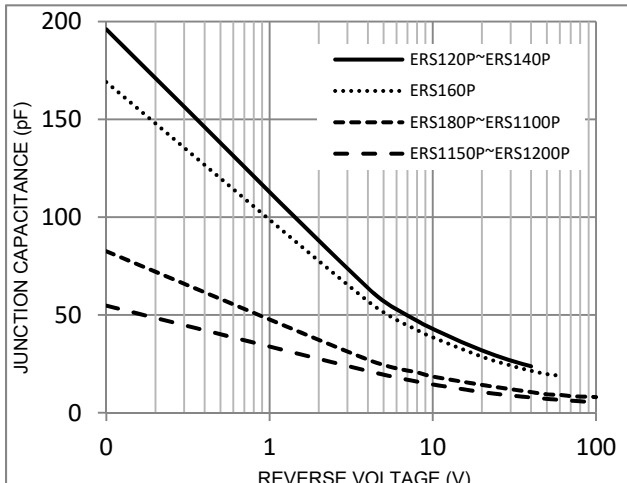
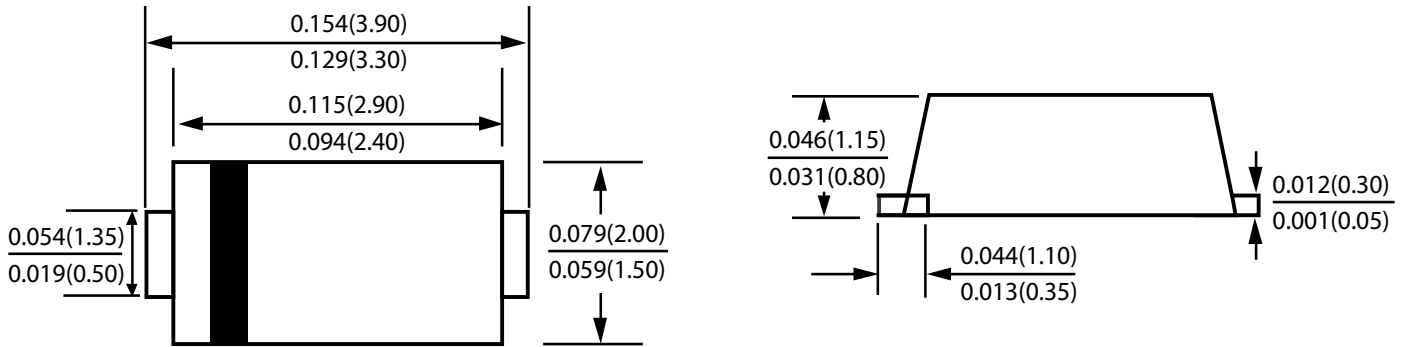


FIG. 5-Typical Junction Capacitance





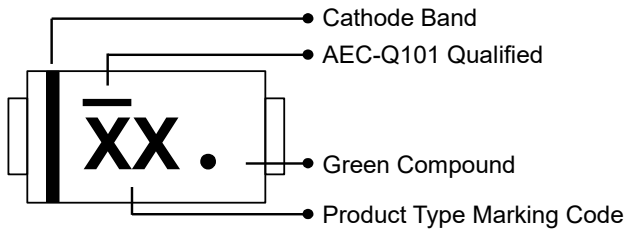
Package Outline Dimensions



SOD-123F

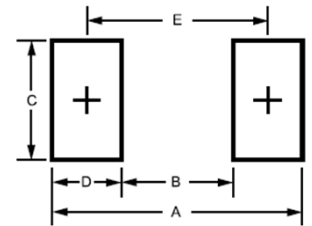
Dimensions in inches and (millimeters)

Marking Information



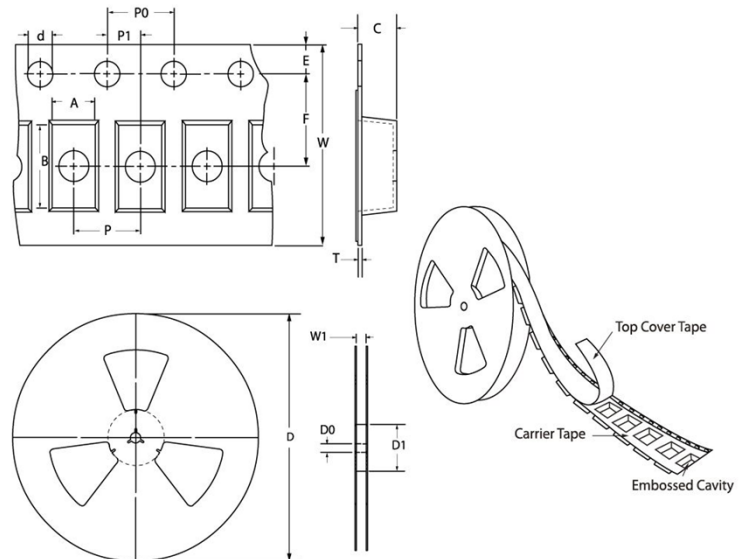
Suggested Pad Layout

Outline Dimension	SOD-123F (mm)
A	4.25
B	1.52
C	1.80
D	1.34
E	2.86



Tape & Reel Specification

Item	Symbol	SOD-123F (mm)
Carrier width	A	2.00 ± 0.15
Carrier length	B	3.98 ± 0.13
Carrier depth	C	1.38 ± 0.17
Sprocket hole	d	1.75 ± 0.35
Reel outside diameter	D	180 (max)
Reel inner diameter	D1	50 (min)
Feed Hole diameter	D0	13.10 ± 0.6
Sprocket hole position	E	1.75 ± 0.1
Punch hole position	F	3.50 ± 0.1
Punch hole pitch	P	4.00 ± 0.1
Sprocket hole pitch	P0	4.00 ± 0.1
Embossment center	P1	2.00 ± 0.1
Overall tape thickness	T	0.28 (max)
Tape width	W	8.0 ± 0.3
Reel width	W1	10.0 ± 2





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