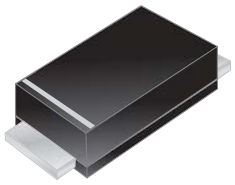
ERS130LP thru ERS160LP

Schottky Barrier Rectifiers



SOD-123F

Primary Characteristics

I_F	1	A
V_{RRM}	30~60	V
I_{FSM}	30	A
V_F	0.46、0.55	V
T_J max	75	°C

Features

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250°C for 10 Seconds at Terminals
- 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
- External Lead-Free Finish
- Weight：0.015 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
ERS1xxLP	RoHS Compliant	SOD-123F	3000 / Tape & Reel
ERS1xxLP-H	Halogen Free		
ERS1xxLP-Q	AEC-Q101 qualified		

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

Parameter	Symbol	ERS130LP	ERS140LP	ERS160LP	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	40	60	V
Maximum RMS Voltage	V_{RMS}	21	28	42	V
Maximum DC Blocking Voltage	V_{DC}	30	40	60	V
Maximum Average Forward Rectified Current	I_F	1			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	30			A
Maximum Instantaneous Forward Voltage IF=1A @ 25°C	V_F	0.46		0.55	V
Maximum DC Reverse Current @ TA=25°C	I_R	1			mA
Typical Junction Capacitance (NOTE1)	C_j	90			pF
Typical Thermal Resistance	$R_{\theta Ja}$	100			°C/W
Operating Temperature Range	T_J	-50 ~ 75			°C
Storage Temperature Range	T_{STG}	-50 ~ 125			°C
Marking Code		K3	K4	K6	

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

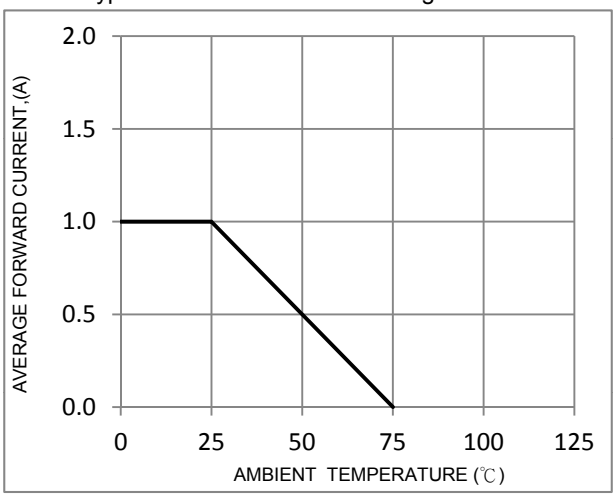


FIG. 2-Typical Forward Characteristics

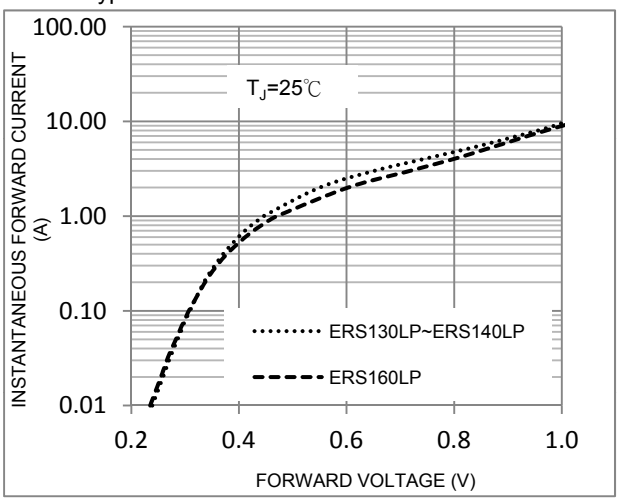


FIG. 3-Maximum Non-Repetitive Forward Surge Current

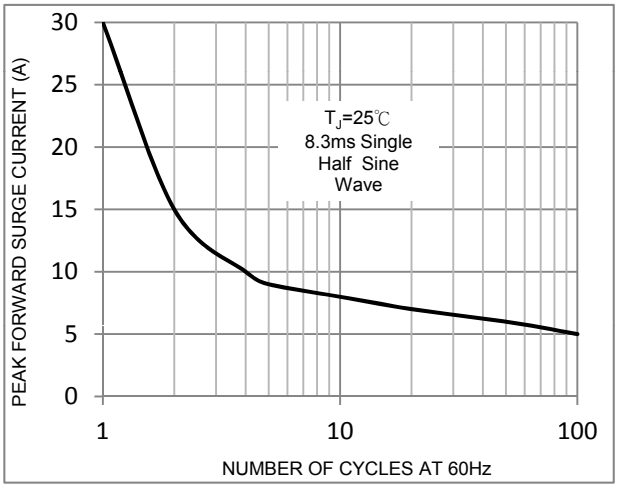


FIG. 4-Typical Reverse Characteristics

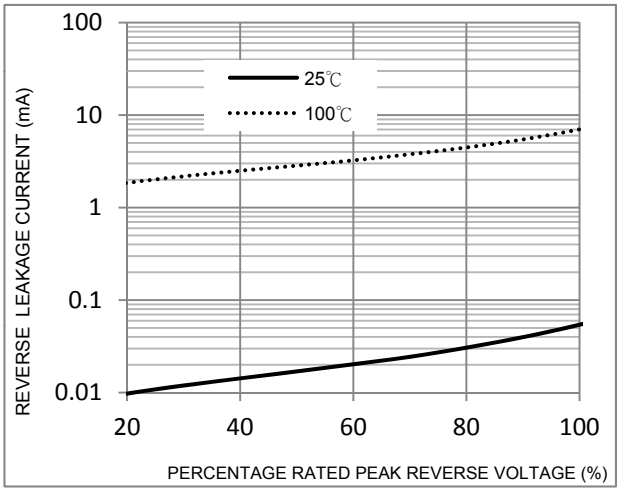
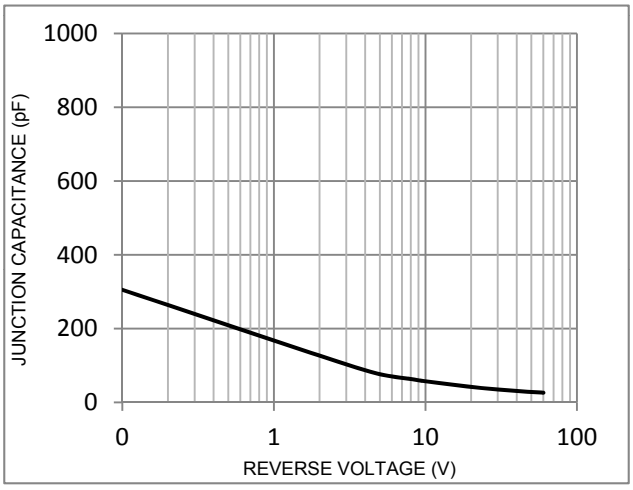


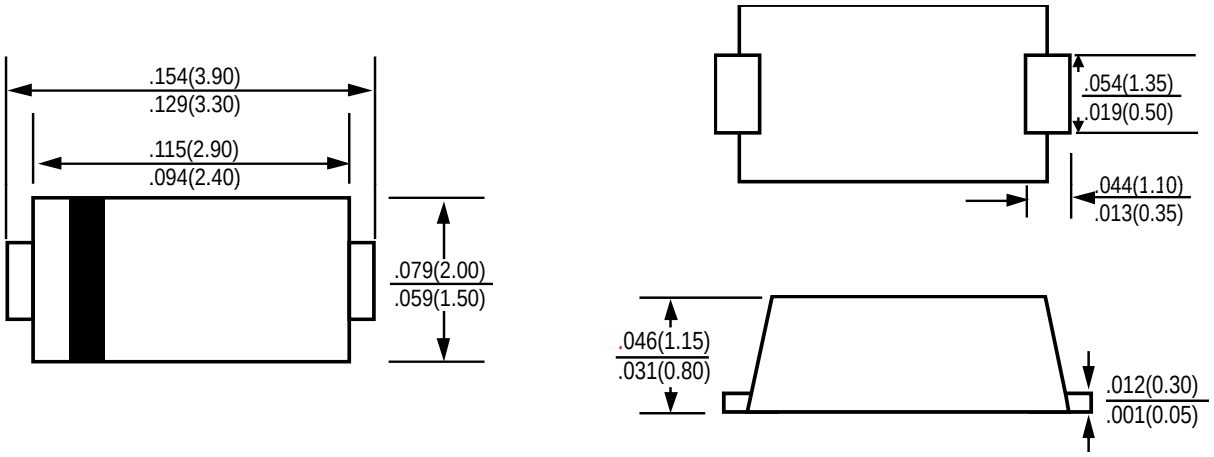
FIG. 5-Typical Junction Capacitance



ERS130LP thru ERS160LP

Schottky Barrier Rectifiers

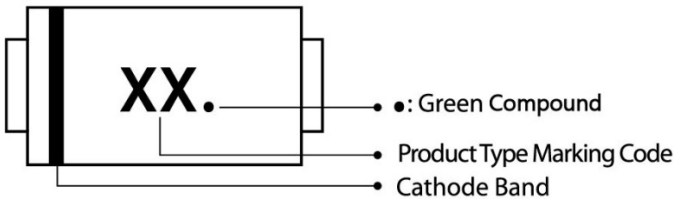
Package Outline Dimensions



SOD-123F

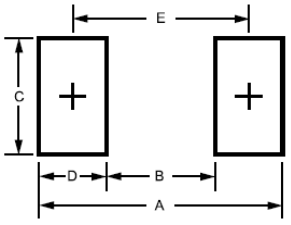
Dimensions in inches and (millimeters)

Marking Information



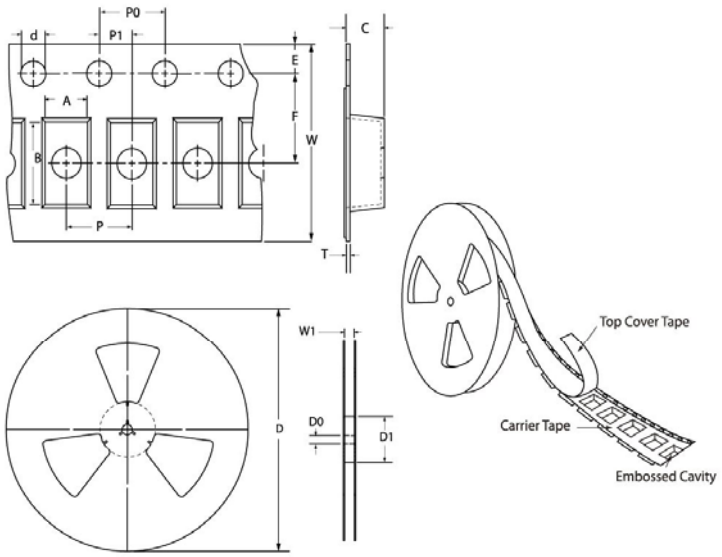
Suggested Pad Layout

Dimension \ Outline	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	2.05 ± 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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