

SOD-123F

Primary Characteristics

I_F	3	A
V_{RRM}	20~60	V
I_{FSM}	60	A
V_F	0.55, 0.7	V
$T_J \text{ max}$	125	°C

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 : 0.015 grams (approximate)

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

Ordering Information

Part No.	Remark	Package	Packing
ERS3xxP	General	SOD-123F	3000 / Tape & Reel
ERS3xxP-H	Halogen Free		
ERS3xxP-Q	AEC-Q101 qualified		

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

Parameter	Symbol	ERS320P	ERS330P	ERS340P	ERS360P	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	V
Maximum Average Forward Rectified Current	I_F	3				A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	60				A
Maximum Instantaneous Forward Voltage IF=3A @ 25°C	V_F	0.55			0.7	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	135			100	pF
Typical Thermal Resistance	$R_{\theta JC}$	55				°C/W
Operating Temperature Range	T_J	-50 ~ 125				°C
Storage Temperature Range	T_{STG}	-50 ~ 150				°C
Marking Code		V2	V3	V4	V6	

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

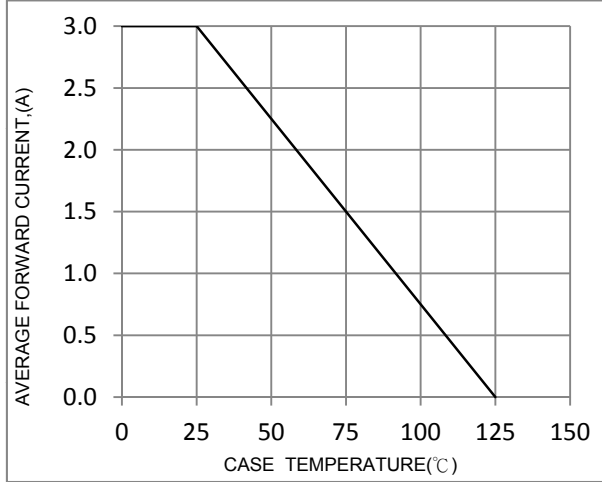


FIG. 2-Typical Forward Characteristics

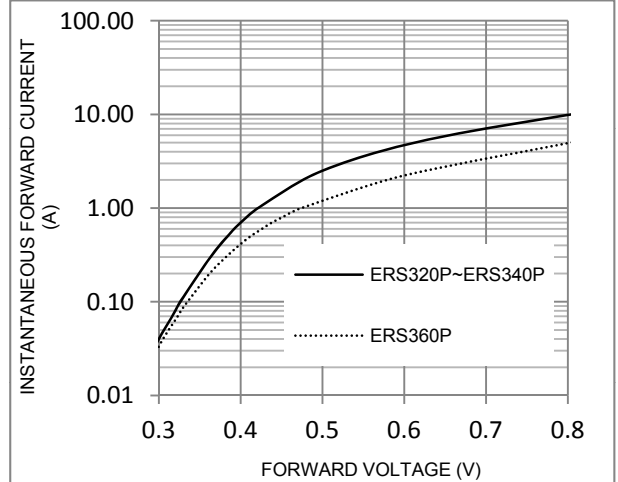


FIG. 3-Maximum Non-Repetitive Forward Surge Current

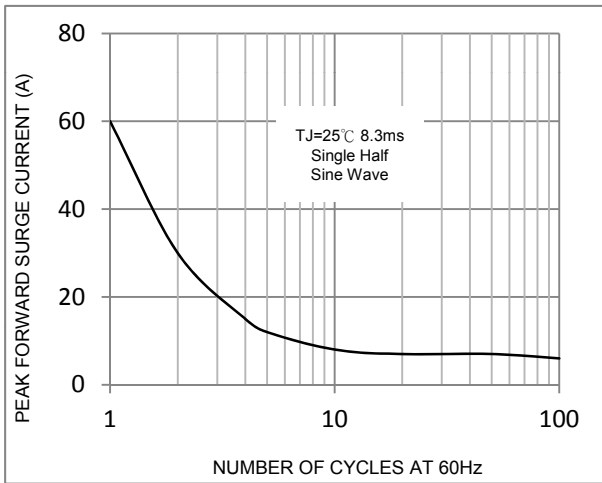


FIG. 4-Typical Reverse Characteristics

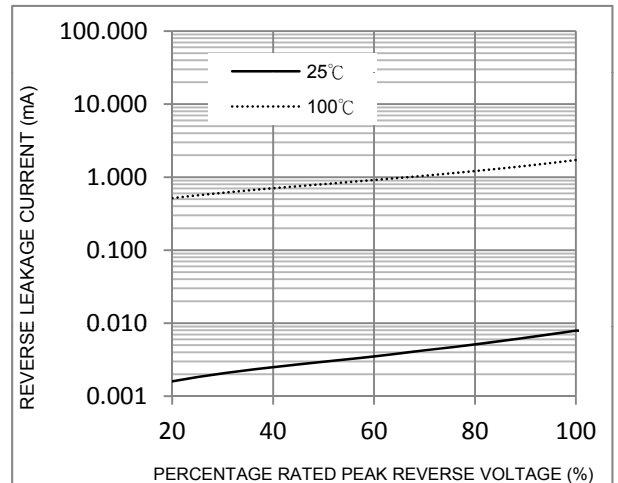
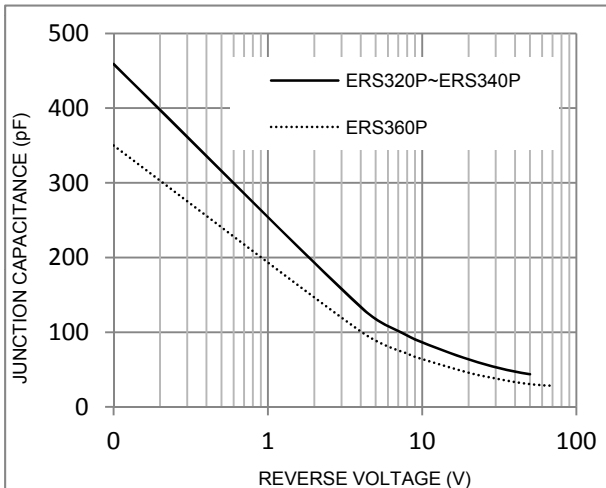
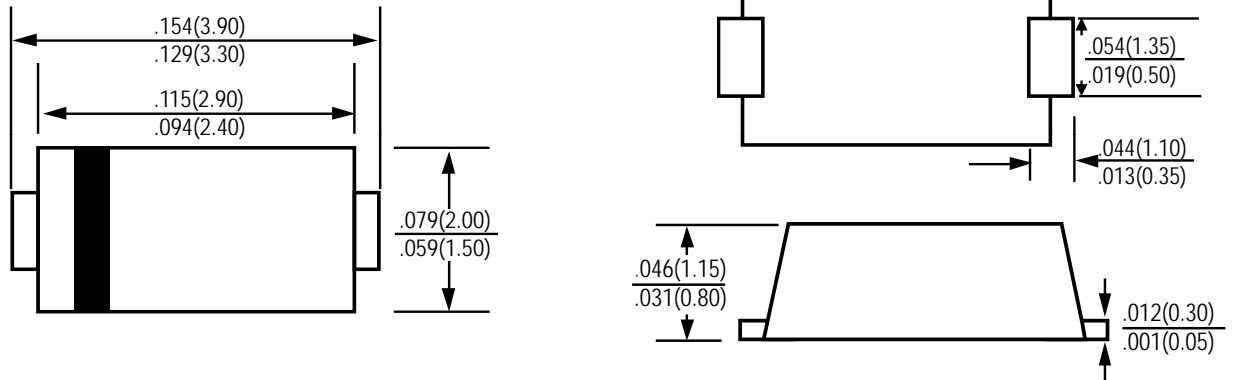


FIG. 5-Typical Junction Capacitance





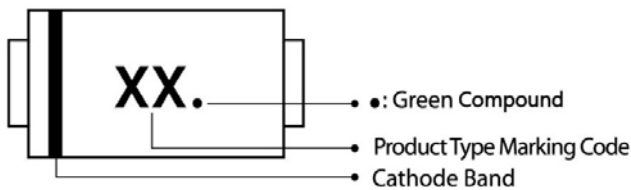
Package Outline Dimensions



SOD-123F

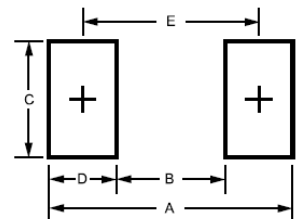
Dimensions in inches and (millimeters)

Marking Information



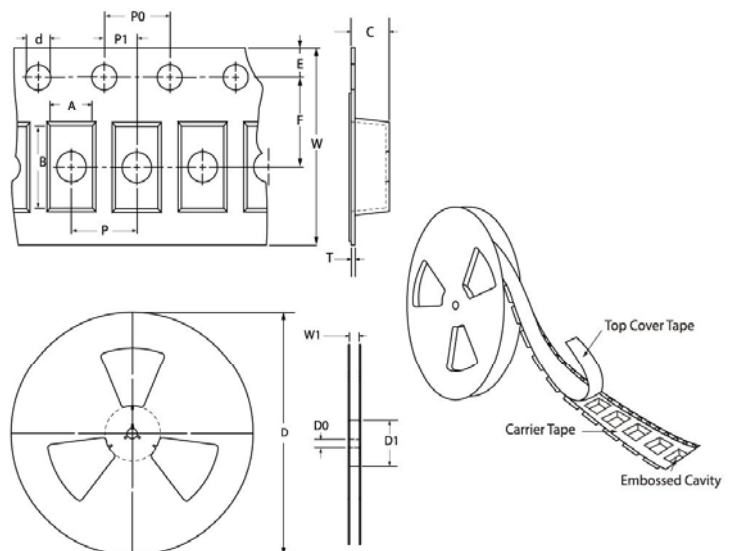
Suggested Pad Layout

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



Tap & 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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