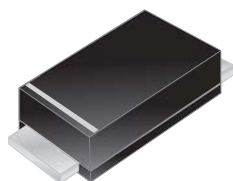




ERS0520P thru ERS05200P



Schottky Barrier Rectifiers



SOD-123F

Primary Characteristics

I_F	0.5	A
V_{RRM}	20~200	V
I_{FSM}	20	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
- 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
- Weight: 0.015 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
ERS05xxP	General	SOD-123F	3000 / Tape & Reel
ERS05xxP-H	Halogen Free		
ERS05xxP-Q	AEC-Q101 qualified		

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

PARAMETER	SYMBOL	ERS05 20P	ERS05 30P	ERS05 40P	ERS05 60P	ERS05 80P	ERS05 100P	ERS05 150P	ERS05 200P	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	0.5								A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	20.0								A
Maximum Instantaneous Forward Voltage IF=0.5A @ 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 25						0.2 15		mA
Typical Junction Capacitance(NOTE1)	C_j	60		30		25		20		pF
Typical Thermal Resistance	$R_{\theta JC}$	100								°C/W
Operating Temperature Range	T_J	-50 ~ 125				-50 ~ 150				°C
Storage Temperature Range	T_{STG}	-50 ~ 150								°C
Marking Code		B2	B3	B4	B6	B8	BA	BB	BC	

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

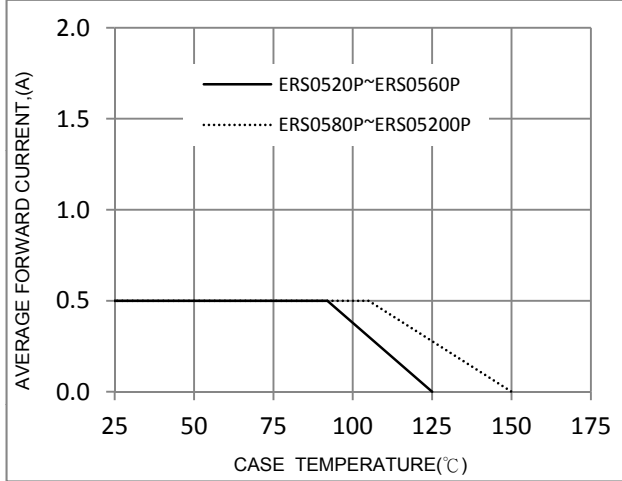


FIG. 2-Typical Forward Characteristics

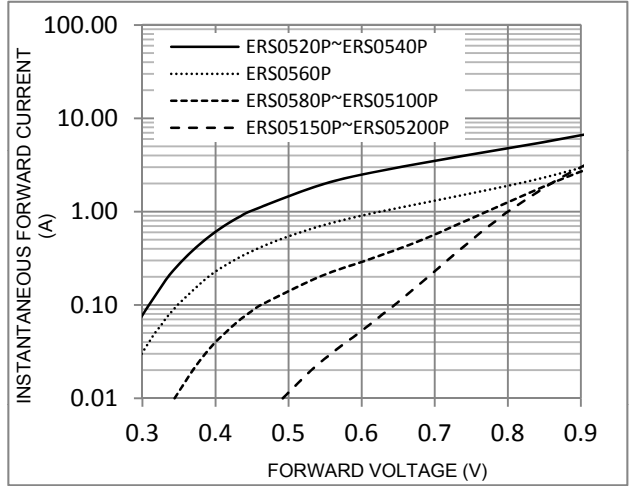


FIG. 3-Maximum Non-Repetitive Forward Surge Current

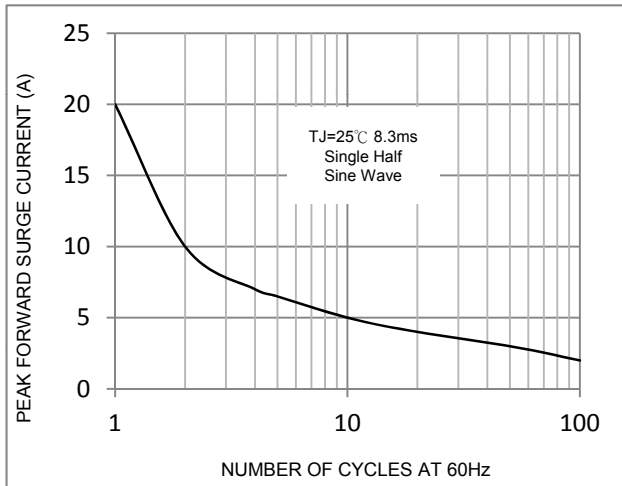


FIG. 4-Typical Reverse Characteristics

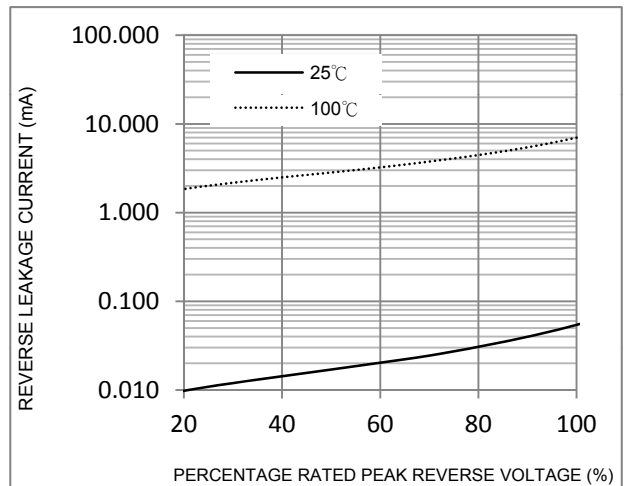
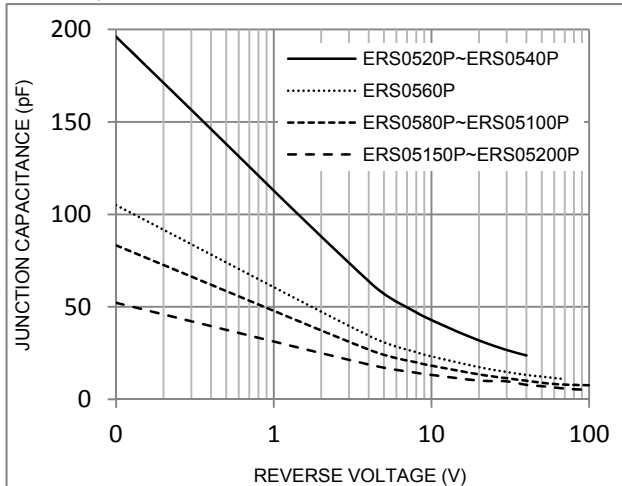


FIG. 5-Typical Junction Capacitance



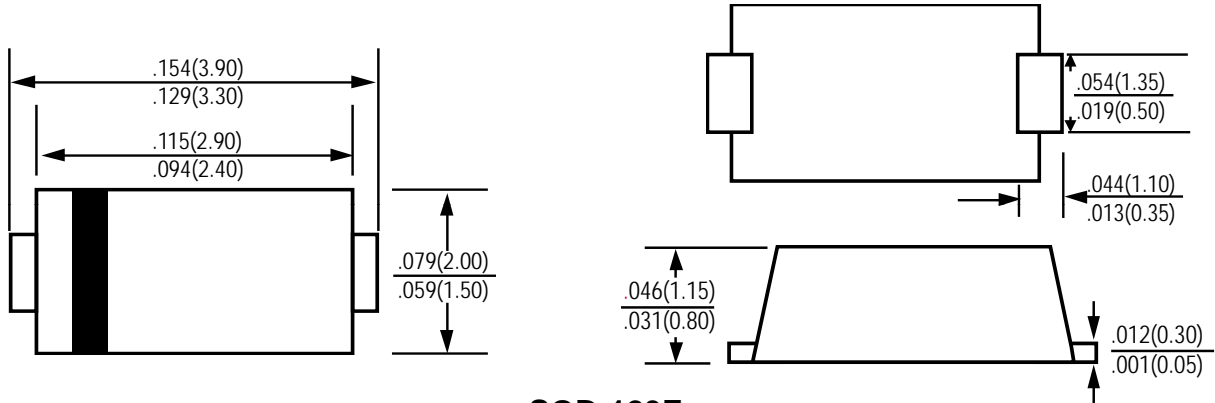


ERS0520P thru ERS05200P



Schottky Barrier Rectifiers

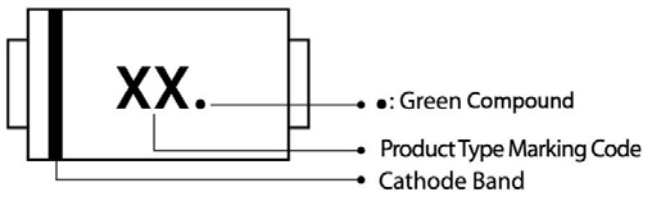
Package Outline Dimensions



SOD-123F

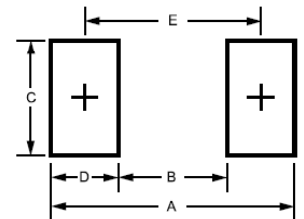
Dimensions in inches and (millimeters)

Marking Information



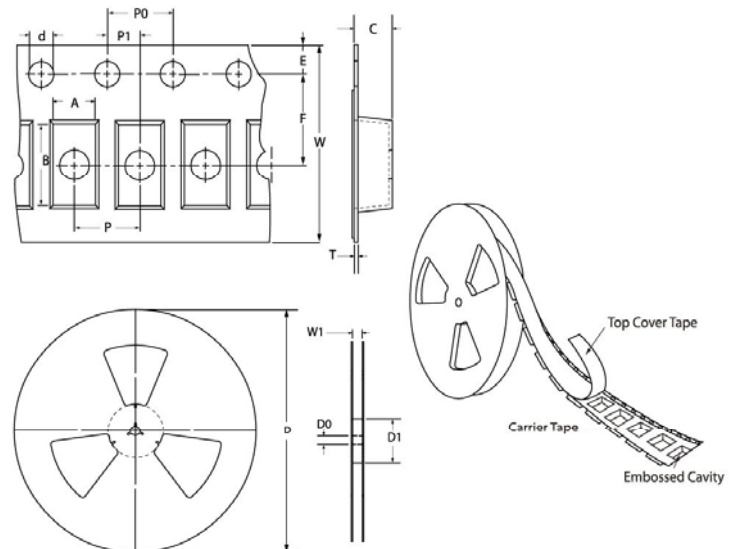
Suggested Pad Layout

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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