



1.0Amp. Surface Mount Schottky Barrier Diodes

CSOD120-1100SF Series

Features

- For surface mounted applications.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Plastic material used carries Underwriters Laboratory Flammability Classification 94V-0
- Low leakage current
- High surge capability
- High temperature soldering: 250°C/10 seconds at terminals
- Exceeds environmental standards of MIL-S-19500/228

Mechanical Data

- Case: Molded plastic, JEDEC SOD-123/Mini SMA.
- Terminals: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Indicated by cathode band.
- Packaging: 12mm tape per EIA STD RS-481.
- Weight: 0.04 gram

Maximum Ratings and Electrical Characteristics

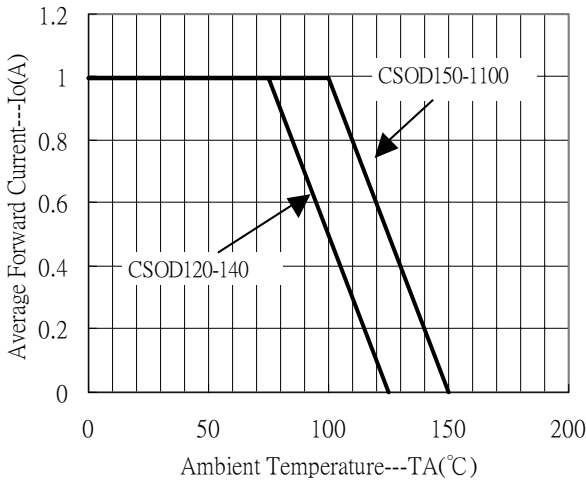
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Type							Units
		CSOD 120	CSOD 130	CSOD 140	CSOD 150	CSOD 160	CSOD 180	CSOD 1100	
Repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V _R	20	30	40	50	60	80	100	V
Maximum instantaneous forward voltage, IF=1A (Note 1)	V _F	0.5	0.5	0.5	0.7	0.7	0.85	0.85	V
Average forward rectified current	I _O	1							A
Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	30							A
Maximum DC reverse current V _R =V _{RRM} , T _A =25°C (Note 1) V _R =V _{RRM} , T _A =125°C (Note 1)	I _R	0.5 10							mA mA
Maximum thermal resistance, Junction to ambient	R _{th,JA}	98 (typ)							°C/W
Diode junction capacitance @ f=1MHz and applied 4V reverse voltage	C _J	120 (typ)							pF
Storage temperature	T _{stg}	-55 ~ +150							°C
Operating temperature	T _J	-55 ~ +125			-55 ~ +150				°C

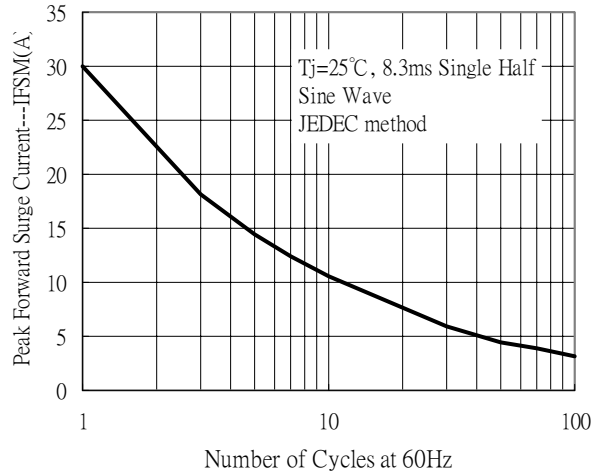
Notes : 1.Pulse test, pulse width=300 μ sec, 2% duty cycle

Characteristic Curves

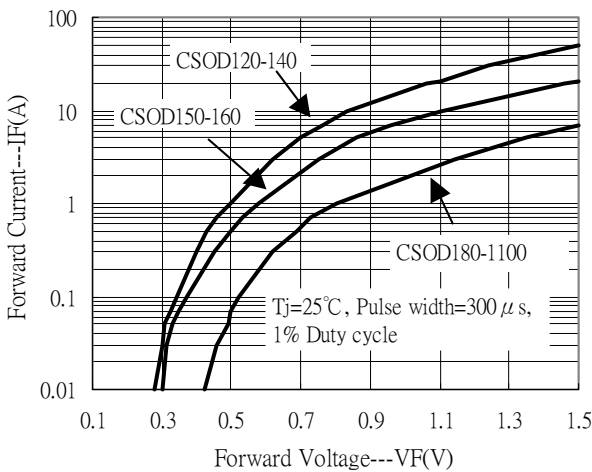
Forward Current Derating Curve



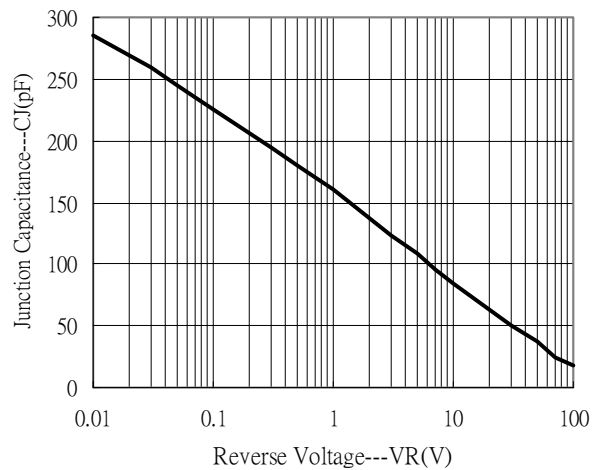
Maximum Non-Repetitive Forward Surge Current



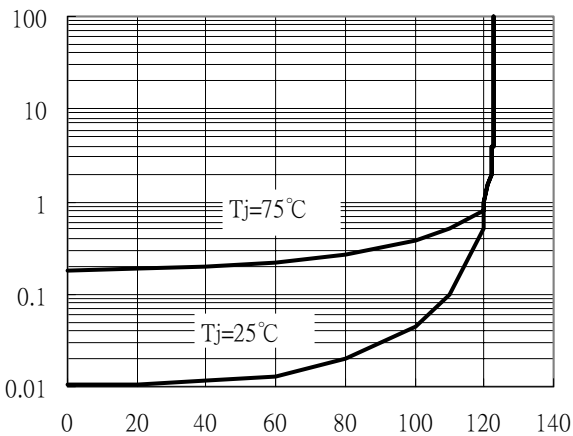
Forward Current vs Forward Voltage



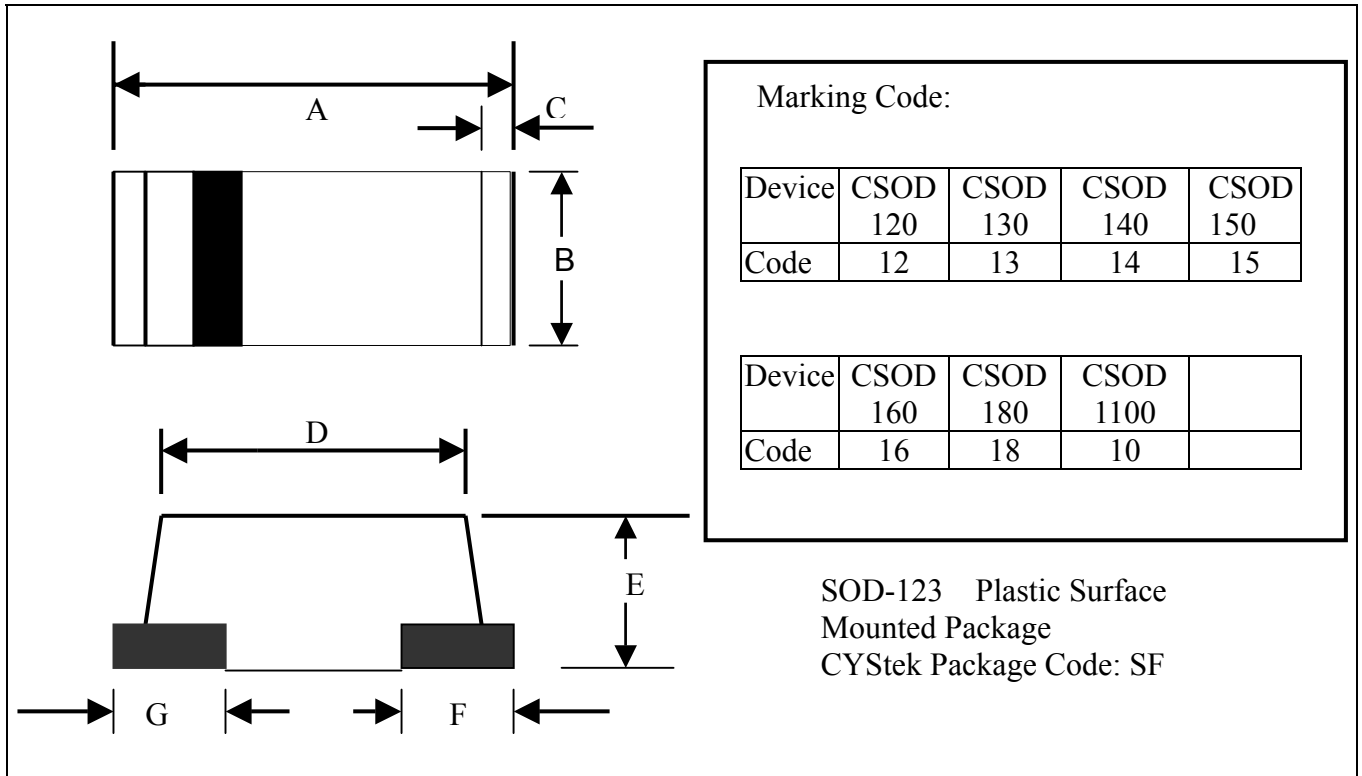
Junction Capacitance vs Reverse Voltage



Reverse Leakage Current vs Reverse Voltage



SOD-123 Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.146	0.161	3.7	4.1	E	0.055	0.063	1.4	1.6
B	0.055	0.071	1.4	1.8	F	0.035(typ)		0.9(typ)	
C	0.012(typ)		0.3(typ)		G	0.035(typ)		0.9(typ)	
D	0.094	0.110	2.4	2.8	-	-	-	-	-

Notes : 1.Controlling dimension : millimeters.
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material :

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

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