DS12W THRU DS120W SOD-123FL

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current - 1 A

Pinning

1.Cathode	2.Anode



SOD-123FL

FEATURES

Metal silicon junction, majority carrier conduction

For surface mounted applications

Low power loss, high efficiency

High forward surge current capability

For use in low voltage, high frequency inverters,

free wheeling, and polarity protection applications

Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

Case: SOD-123FL

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 15mg /0.00048oz

Marking Code

DS12W	YFW K12	YFW S12
DS14W	YFW K14	YFW S14
DS16W	YFW K16	YFW S16
DS18W	YFW K18	YFW S18
DS110W	YFW K110	YFW S110
DS112W	YFW K112	YFW S112
DS115W	YFW K115	YFW S115
DS120W	YFW K120	YFW S120

Absolute Maximum Ratings and Electrical characteristics

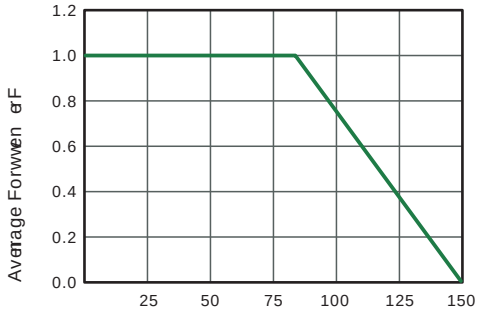
Ratings at 25 ° ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	DS12W	DS14W	DS16W	DS18W	DS110W	DS112W	DS115W	DS120W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	40				30				A
Maximum Instantaneous Forward Voltage at 1 A	V_F	0.55		0.70		0.85		0.90		V
Maximum Instantaneous Reverse Current T_A = 25°C at Rated DC Reverse Voltage T_A = 100°C	I_R	0.3 10				0.2 5		0.1 2		mA
Typical Junction Capacitance (1)	C_j	110		80						pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	100								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150								°C
Storage Temperature Range	T_{stg}	-55 ~ +150								°C

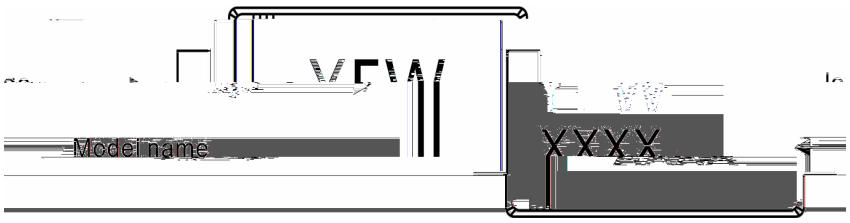
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve



Marking Diagram

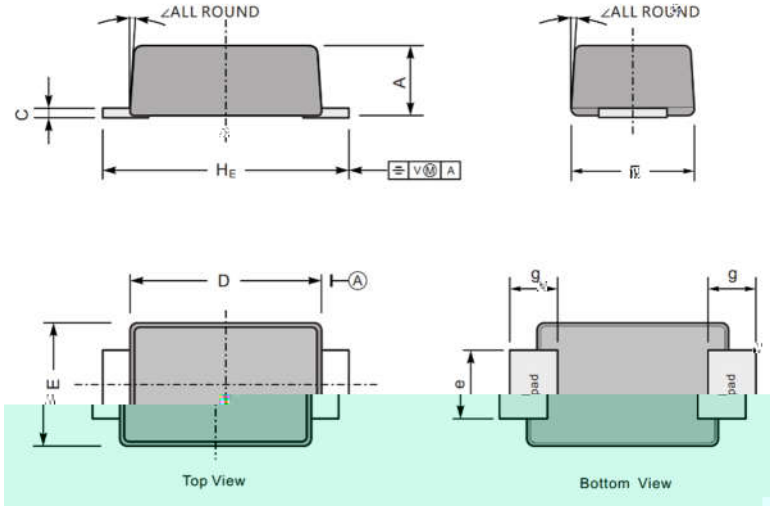


Ordering information

Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel,13"reel	10000PCS/Reel 100000PCS/Carton
	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

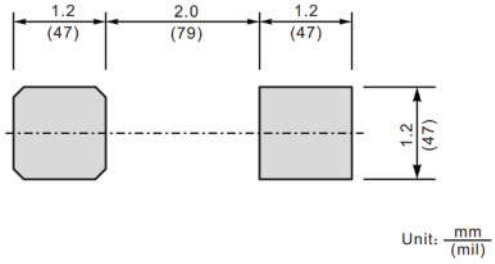
Package Dimensions

SOD-123FL



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			

The recommended mounting pad size



The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices),YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website https://www.yfwdiode.com, or consult YFW sales office for further assistance.