

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current - 3.0 A

FEATURES

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆For surface mounted applications
- ◆Built-in strain relief,ideal for automated placement
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed
250°C/10 seconds at terminals

MECHANICAL DATA

- ◆Case: SOD-123FL
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 0.0007 ounce, 0.02 grams

Pinning

1.Cathode	2.Anode
	
SOD-123FL	

Marking Code

DS32W	YFW K32	YFW S32
DS34W	YFW K34	YFW S34
DS36W	YFW K36	YFW S36
DS38W	YFW K38	YFW S38
DS310W	YFW K310	YFW S310
DS312W	YFW K312	YFW S312
DS315W	YFW K315	YFW S315
DS320W	YFW K320	YFW S320

Absolute Maximum Ratings and Electrical characteristics

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

Parameter	Symbols	DS32W	DS34W	DS36W	DS38W	DS310W	DS312W	DS315W	DS320W	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	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	80								A
Maximum Instantaneous Forward Voltage at 3 A	V_F	0.55	0.70	0.85		0.95				V
Maximum Instantaneous Reverse Current $T_A = 25^{\circ}C$ at Rated DC Reverse Voltage $T_A = 125^{\circ}C$	I_R	0.5 50		0.05 10						mA
Typical Thermal Resistance	$R_{\theta JA}$	85								$^{\circ}C/W$
Operating Junction Temperature Range	T_j	-55 ~ +125			-55 ~ +150					$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 ~ +150								$^{\circ}C$

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

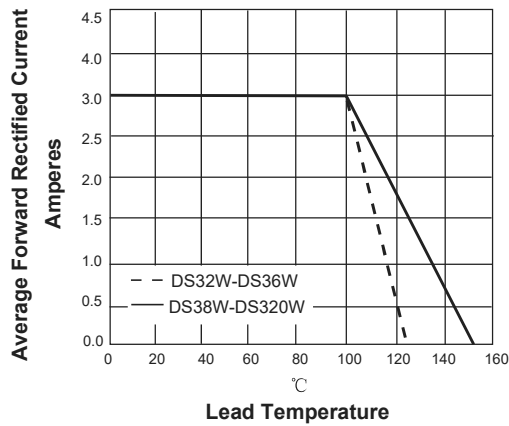


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

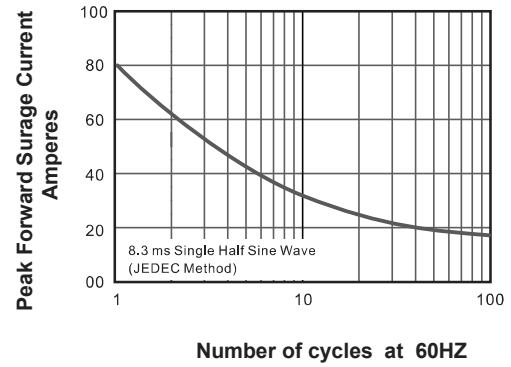


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

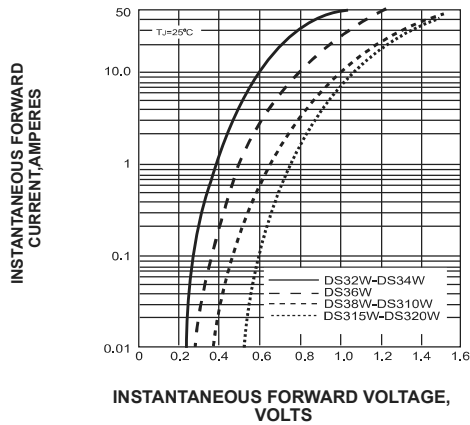
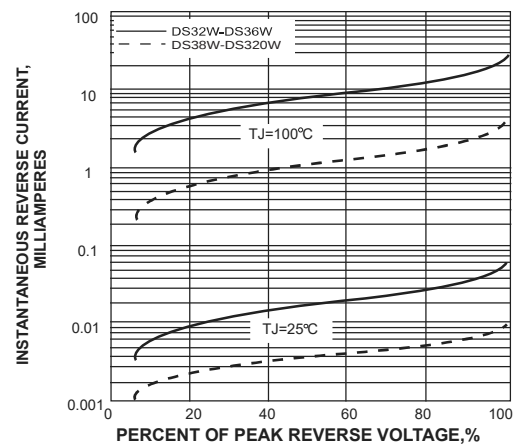
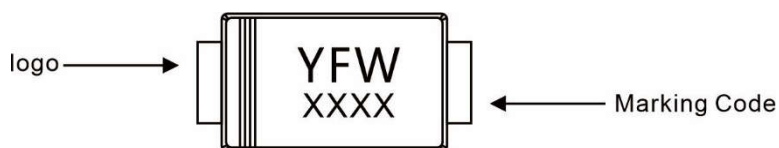


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

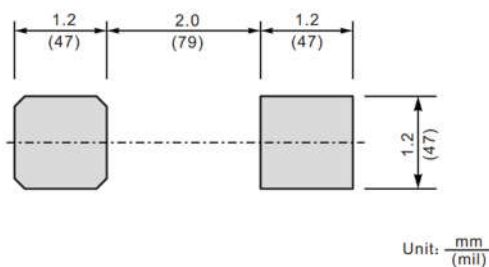
Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

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



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