

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE 20 TO 200 Volt CURRENT 2 Ampere**

### 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
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Expsemi electronics



### MECHANICAL DATA

- Case: JEDEC SOD-123FL molded plastic body
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any

### Maximum Ratings and Electrical characteristics

ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, Ratings at 25 °C

for capacitive load, derate by 20 %

Parameter	Symbols	SSD22	SSD24	SSD26	SSD28	SSD210	SSD215	SSD220	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0						A	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50						A	
Max Instantaneous Forward Voltage at 2 A	$V_F$	0.65		0.85	0.98		1.1		V
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Reverse Voltage $T_a = 100^\circ C$	$I_R$	20 1400		1 1200					uA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	220		180					pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	85							°C/W
Operating Junction Temperature Range	$T_j$	-55~+150			-55~+175				°C
Storage Temperature Range	$T_{stg}$	-55~+150			-55~+175				°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.

## RATING AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

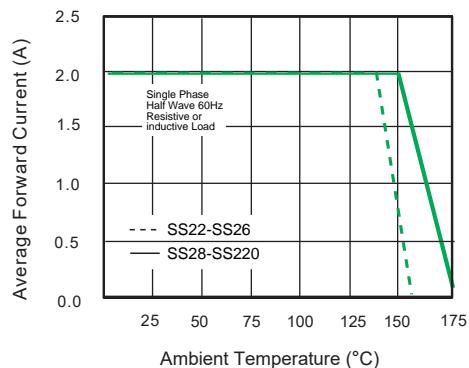


Fig.2 Typical Reverse Characteristics

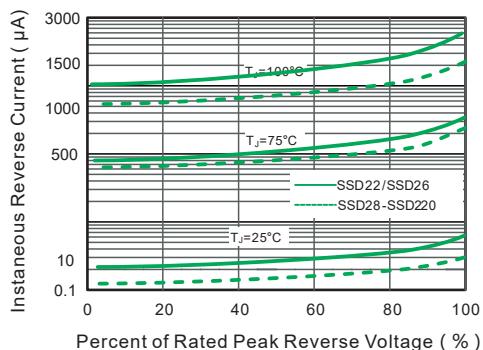


Fig.3 Typical Forward Characteristic

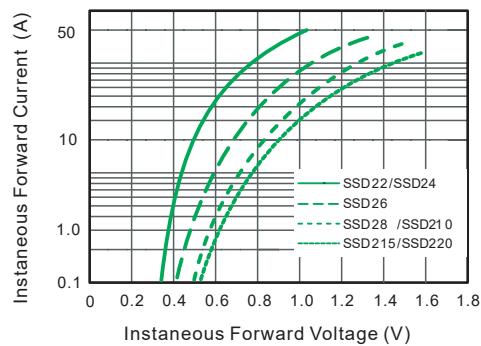


Fig.4 Typical Junction Capacitance

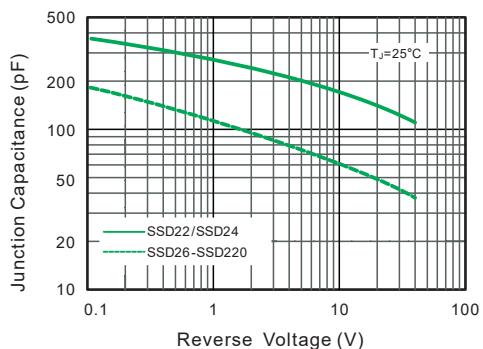


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

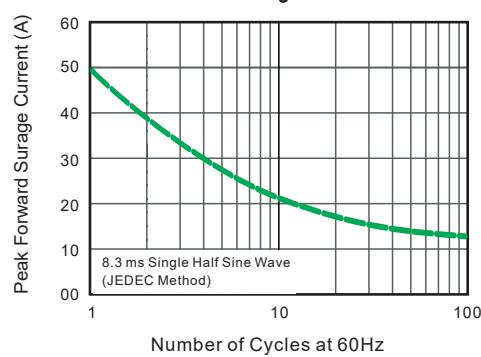
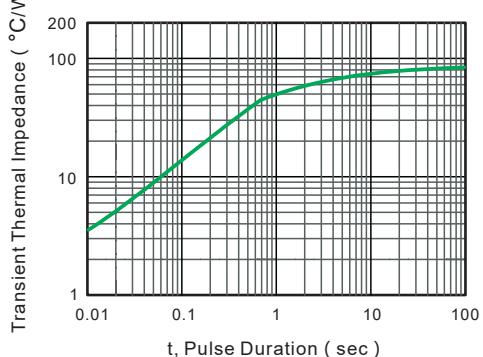
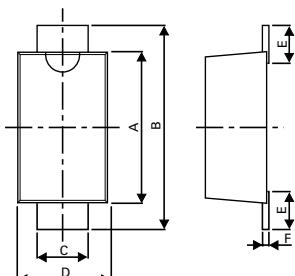


Fig.6-Typical Transient Thermal Impedance

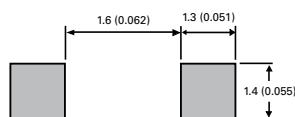


## Dimensions

SOD-123FL Package



Mounting Pad Layout

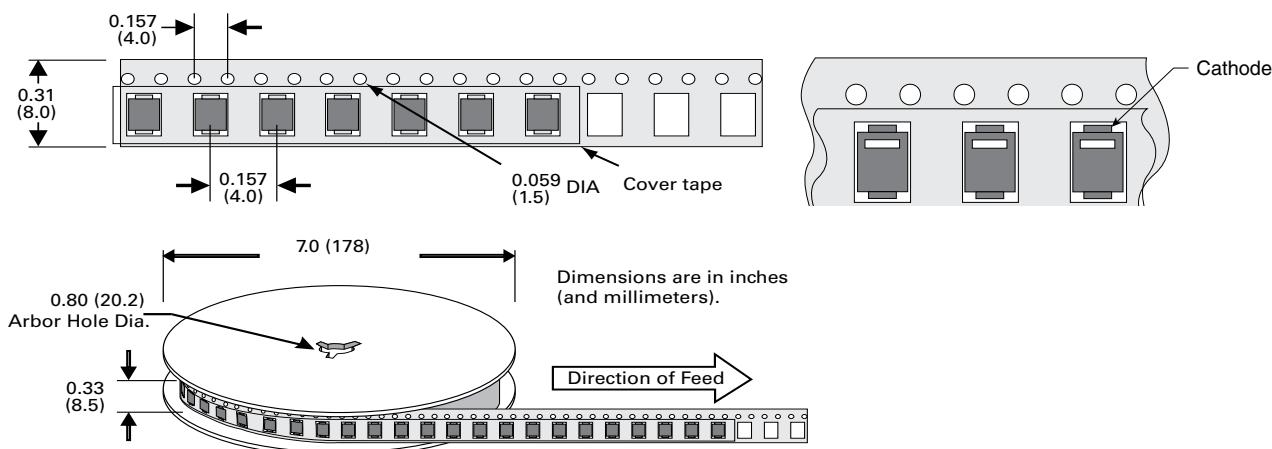


Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	2.50	3.20	0.0984	0.1259
B	3.40	3.90	0.1339	0.1535
C	0.70	1.35	0.0275	0.0531
D	1.50	2.00	0.0591	0.0787
E	0.35	0.90	0.0138	0.0354
F	0.05	0.26	0.0020	0.0102
G	0.00	0.10	0.000	0.0039
H	0.70	1.35	0.0275	0.0531

## Packaging Options

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
SSD2XX	SOD-123FL	3000	Tape & Reel – 8mm tape/7" reel	EIA RS-481

## Tape and Reel Specication



Note: Devices are packde in accordance with EIA standard RS-481-Aand specification given above.