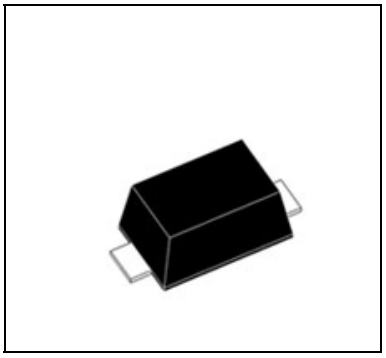
Surface Mount General Rectifier
Reverse Voltage 50 to 1100 Volts Forward Current 1 Ampere

FEATURES



- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed: 250 C/10 seconds,0.375”(9.5mm) lead length,
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Expsemi electronics

MECHANICAL DATA

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

Marking

A1	A1
A2	A2
A3	A3
A4	A4
A5	A5
A6	A6
A7	A7

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 current derate by 20%.

Description	Name	A1	A2	A3	A4	A5	A6	A7	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T_A=65 C° (NOTE 1)	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)T_L=25 ℃	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.3							Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125℃	I_R	0.4 50							μA
Typical junction capacitance (NOTE 2)	C_J	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	75 30							K/W
Operating junction and storage temperature range	T_J,T_{STG}	-50 to +150							℃

Note: 1.Averaged over any 20ms period.
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.Thermal resistance from junction to ambient at 0.375” (9.5mm)lead length,P.C.B. mounted

Typical Characteristics

Fig.1—Typical Forward

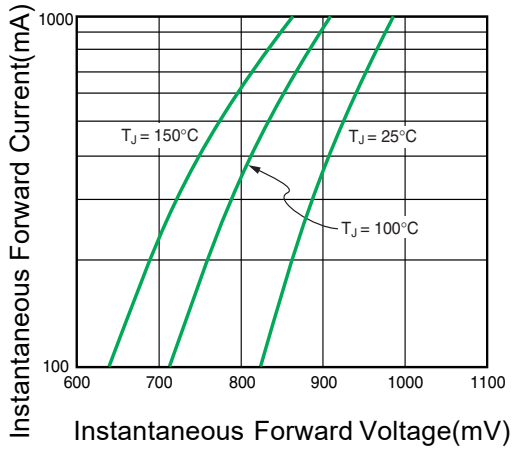


Fig.2—Typical Junction Capacitance

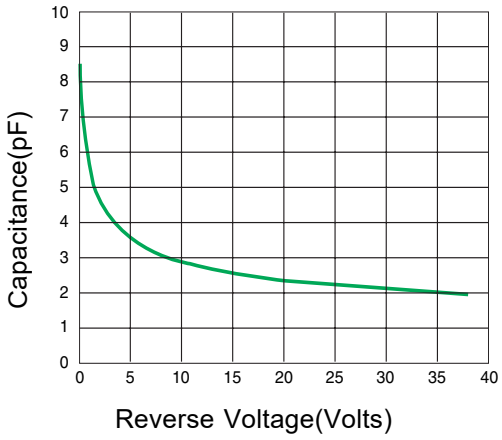


Fig.3—Typical Instantaneous

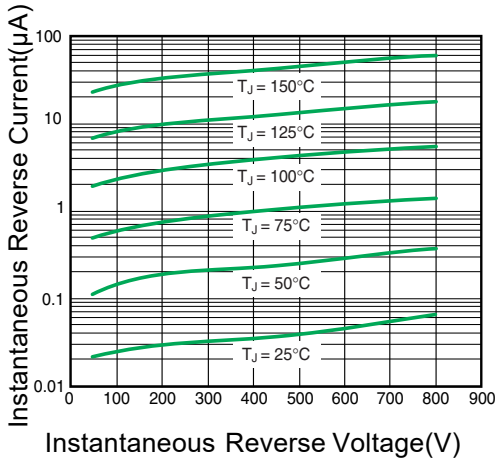
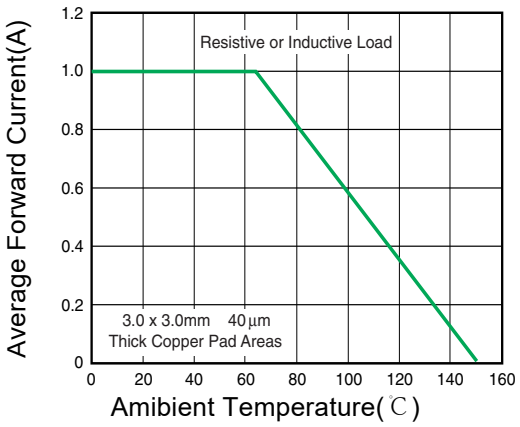
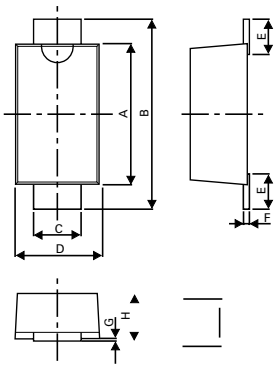


Fig.4—Forward Derating curve

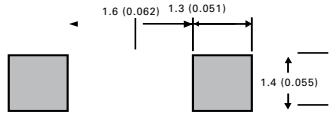


SOD-123FL Package Outline Dimensions



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

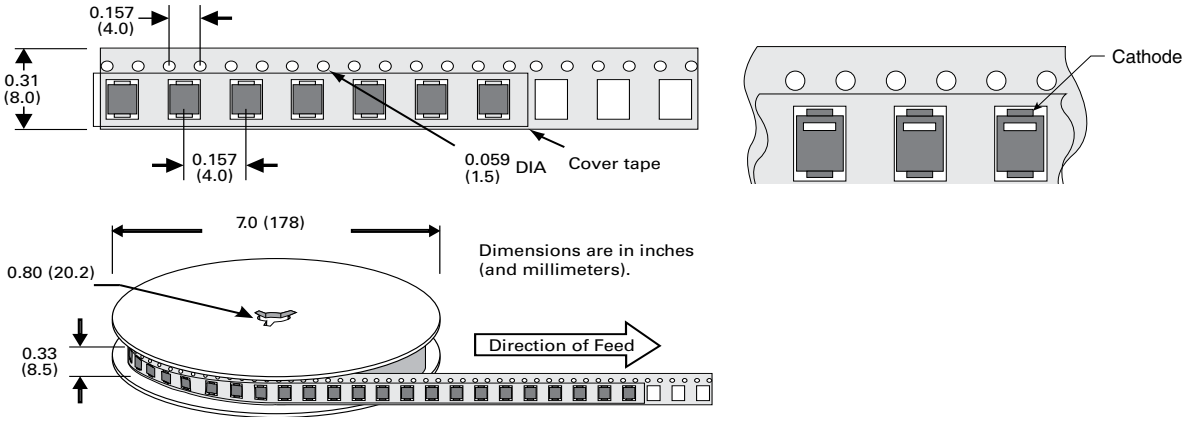
Mounting Pad Layout



Packaging Options

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

Tape and Reel



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