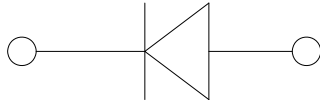
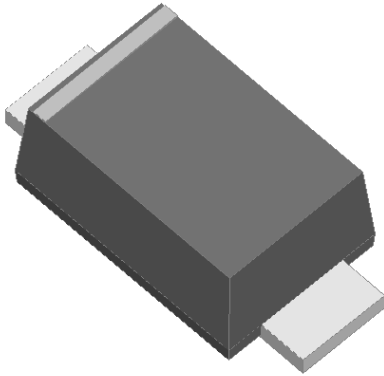


Surface Mount General Purpose Rectifier



Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package:** SOD-323FL
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■ Maximum Ratings (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FMG1A	FMG1B	FMG1D	FMG1G	FMG1J
Device marking code			1AL	1BL	1DL	1GL	1JL
Repetitive peak reverse voltage	V _{RRM}	V	50	100	200	400	600
Maximum RMS voltage	V _{RMS}	V	35	70	140	280	420
Average rectified output current @60Hz sine wave, resistance load, T _c =80°C	I _o	A	1.0				
Surge(non-repetitive)forward current @ 60Hz half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	20				
Current Squared Time @1ms≤t<8.3ms T _j =25°C	I ² t	A ² s	1.66				
Storage temperature	T _{STG}	°C	-55 ~+150				
Junction temperature	T _J	°C	-55 ~+150				



FMG1A THRU FMG1J

■ Electrical Characteristics (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FMG1A	FMG1B	FMG1D	FMG1G	FMG1J
Maximum instantaneous forward voltage drop per diode	V _F	V	I _F =1.0A	1.1				
Typical junction capacitance	C _J	pF	V _R =4V, 1 MHz	4.5				
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	T _J =25°C	5				
			T _J =125°C	50				

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FMG1AE	FMG1BE	FMG1DE	FMG1GE	FMG1JE
Thermal resistance	R _{θJ-A}	°C/W	270 ⁽¹⁾				
	R _{θJ-L}		85 ⁽¹⁾				
	R _{θJ-C}		60 ⁽²⁾				

Note:

- (1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B without copper pad areas.
- (2) Thermal resistance between junction and cathode tab solder point.

■ Characteristics(Typical)

FIG1: I_o-T_c Curve

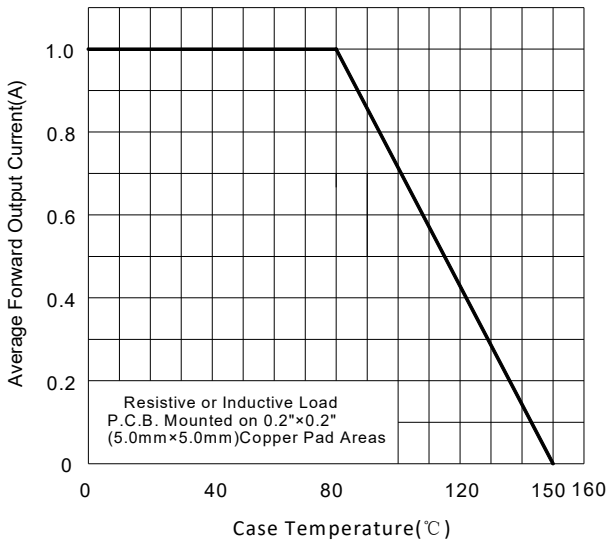
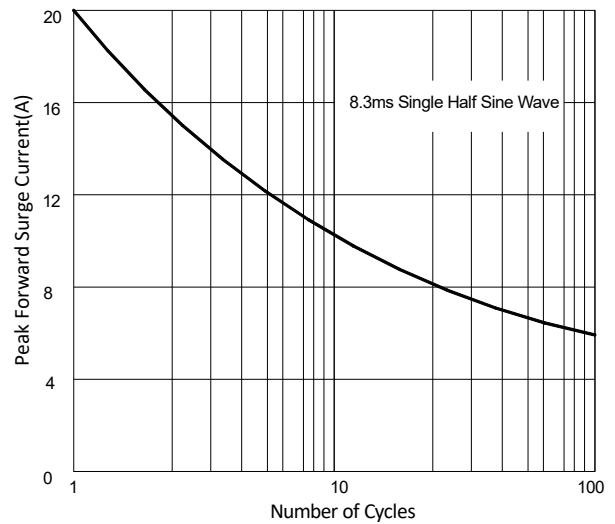


FIG2: Surge Forward Current Capability





FMG1A THRU FMG1J

FIG.3: Forward characteristics

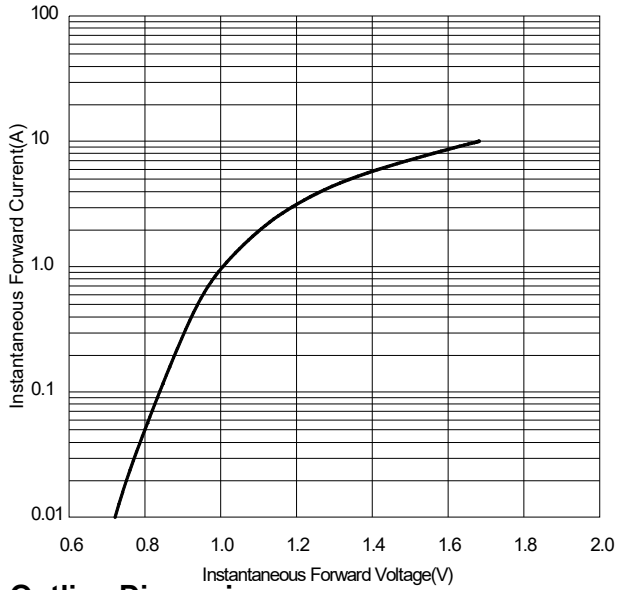
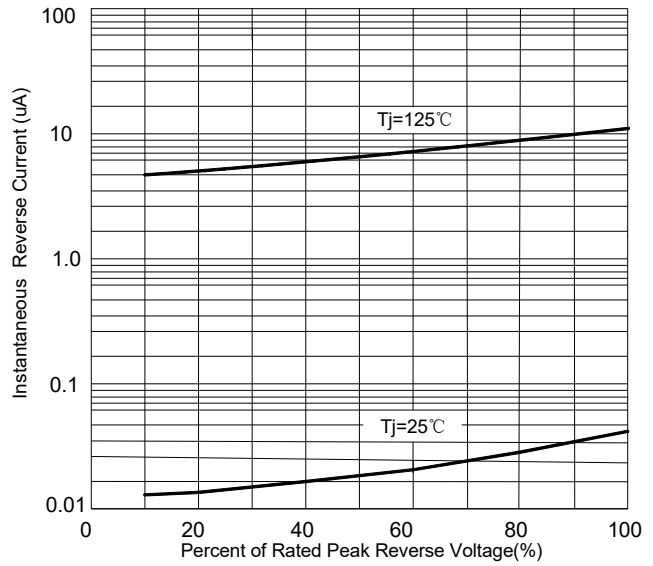
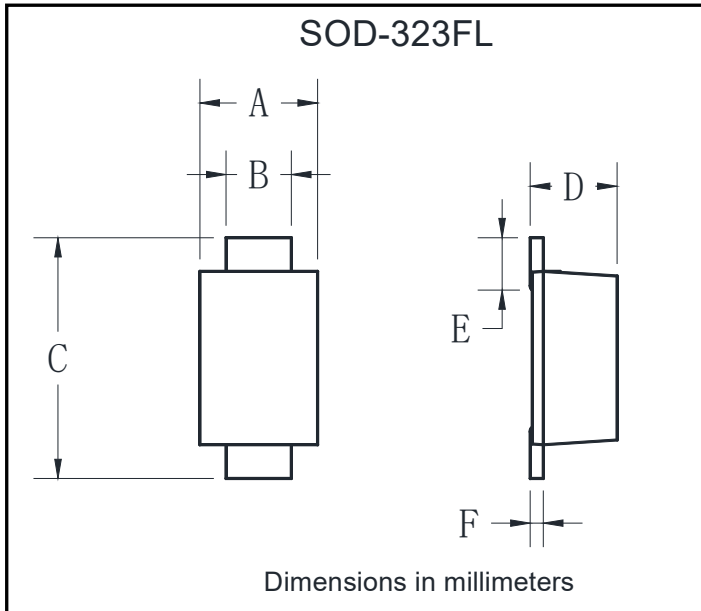


FIG4: Typical Reverse Characteristics

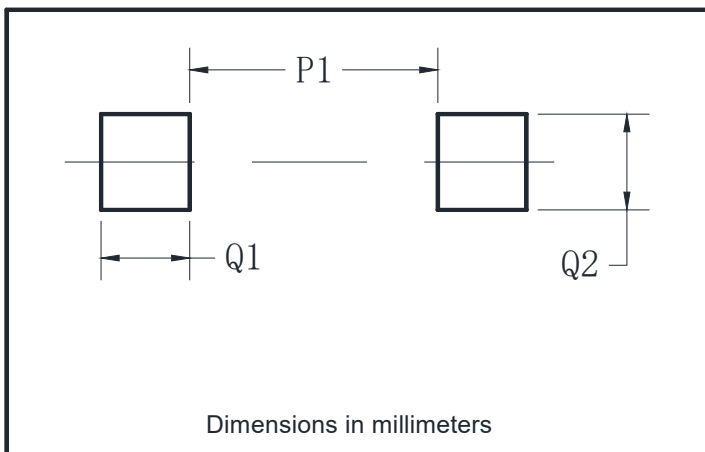


■ Outline Dimensions



SOD-323FL		
Dim	Min	Max
A	1.05	1.45
B	0.90	1.15
C	2.30	2.70
D	0.80	1.20
E	0.25	0.70
F	0.05	0.25

■ Suggested pad layout



SOD-323FL	
Dim	Millimeters
P1	1.30
Q1	1.00
Q2	1.50



FMG1A THRU FMG1J

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