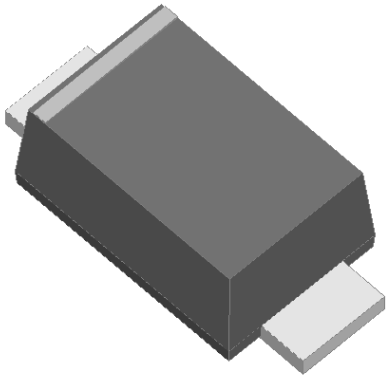
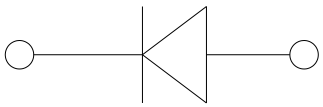
Surface Mount General Purpose Rectifier





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 Date

- ● **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 (Tj=25℃ 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, Tc=80℃	Io	A	1.0				
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, T_J=25℃	I_{FSM}	A	20				
Current Squared Time @1ms≤t<8.3ms Tj=25℃	I^2t	A^2s	1.66				
Storage temperature	T_{STG}	℃	-55 ~+150				
Junction temperature	T_J	℃	-55 ~+150				

■Electrical Characteristics（T_j=25℃ 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℃	5				
			T_J=125℃	50				

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	FMG1AE	FMG1BE	FMG1DE	FMG1GE	FMG1JE
Thermal resistance	$R_{\theta J-A}$	℃/W	270 (1)				
	$R_{\theta J-L}$		85 (1)				
	$R_{\theta J-C}$		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：Io-Tc Curve

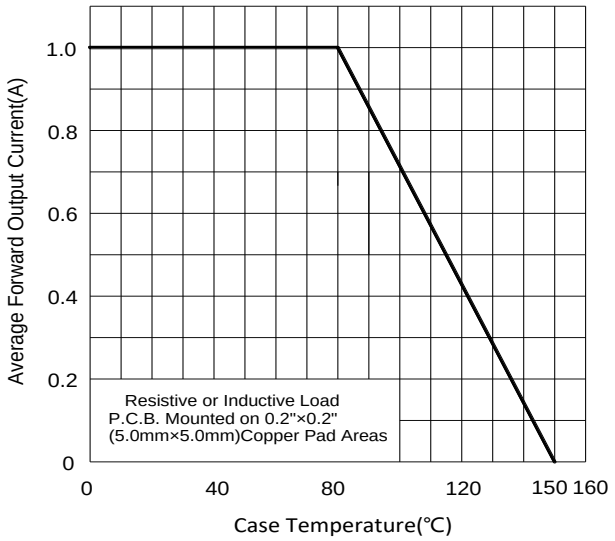


FIG2：Surge Forward Current Capability

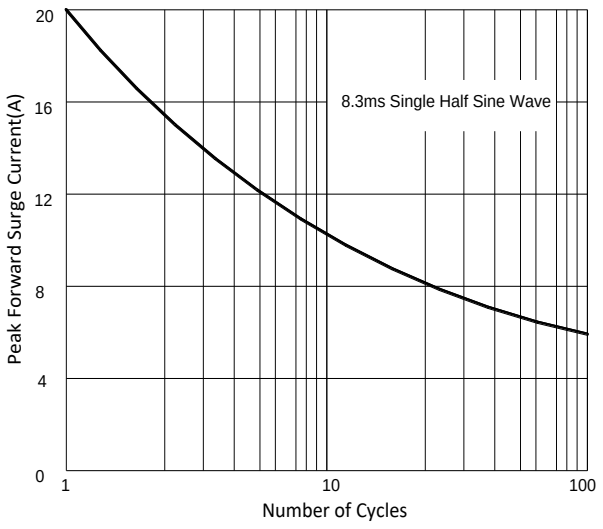


FIG.3: Forward characteristics

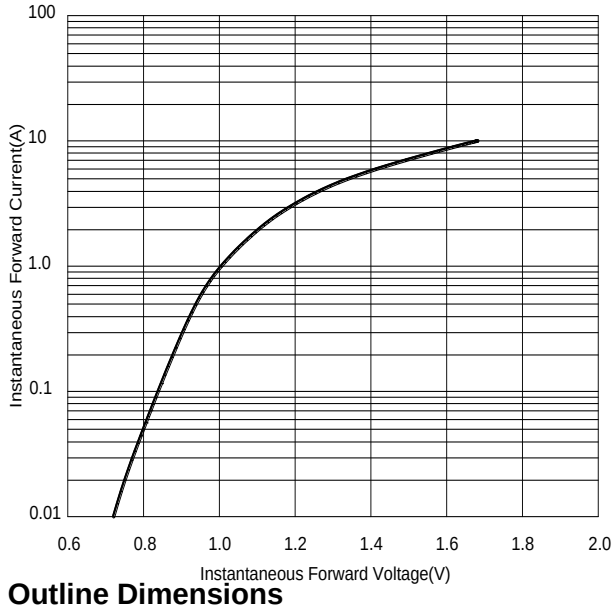
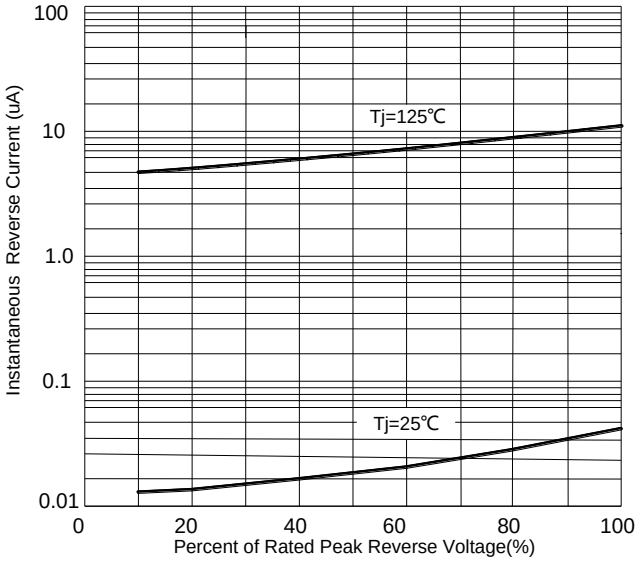
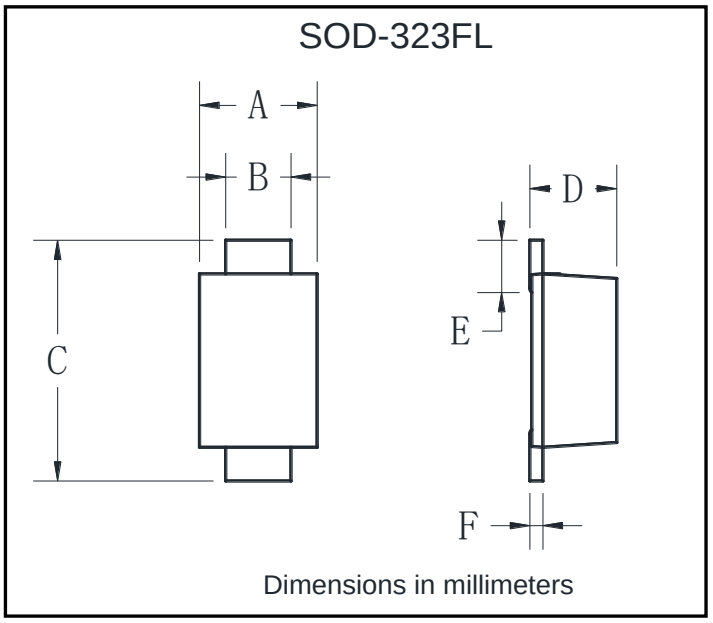


FIG4：Typical Reverse Characteristics

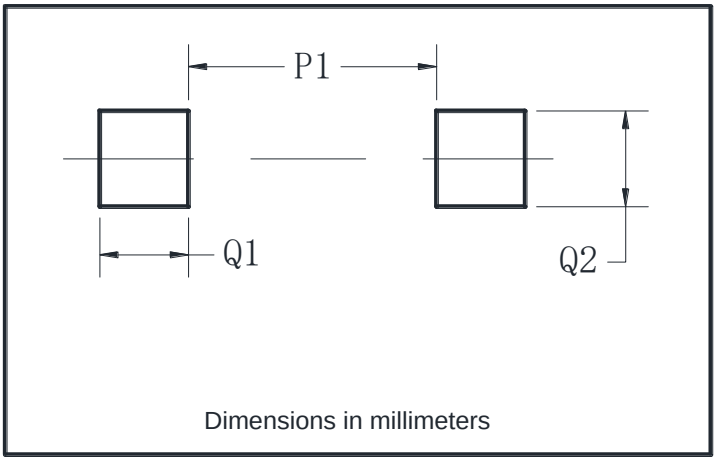


■ Outline Dimensions



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

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