



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 (T_j=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						
	_{RMS}	V	35	70	140	280	420	
Average rectified output current @60Hz sine wave, resistance load, T _c =80	I _o	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 T _j =25	I ² t	A ² s	1.66					
Storage temperature	T _{STG}		-55 ~+150					
Junction temperature	T _J		-55 ~+150					

FMG1A THRU FMG1J

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	$V_R=4V, 1\text{ MHz}$	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_{J-A}	/W	270 ¹				
	R_{J-L}		85 ¹				
	R_{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)

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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	



FMG1A THRU FMG1J

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