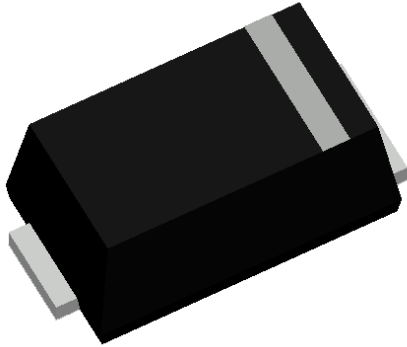


## Surface Mount General Purpose Rectifier



### 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 general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, automotive and telecommunication.

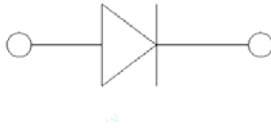
### Mechanical Data

**Package:** SOD-323HE

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<sub>a</sub>=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FMG1AE	FMG1BE	FMG1DE	FMG1GE	FMG1JE	
Device marking code			1A	1B	1D	1G	1J	
Average rectified output current @60Hz sine wave, resistance load, T <sub>c</sub> =80	I <sub>o</sub>	A	1.0					
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, T <sub>J</sub> =25	I <sub>FSM</sub>	A	18					
Current Squared Time @1ms t<8.3ms T <sub>J</sub> =25	I <sup>2</sup> t	A <sup>2</sup> s	1.34					
Storage temperature	T <sub>STG</sub>		-55 ~+150					
Junction temperature	T <sub>J</sub>		-55 ~+150					

### Electrical Characteristics T<sub>a</sub>=25 Unless otherwise specified

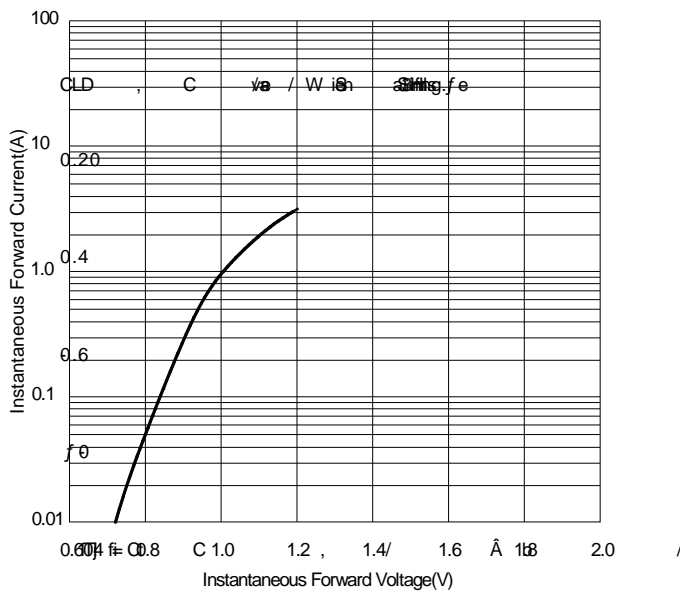
PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FMG1AE	FMG1BE	FMG1DE	FMG1GE	FMG1JE
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>F</sub> =1.0A	1.1				
Typical junction capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =4V,1 MHz	5				
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	T <sub>J</sub> =25	5				
			T <sub>J</sub> =125	50				



# FMG1AE THRU FMG1JE

## Characteristics(Typical)

FIG.3: Forward characteristics



### Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	FMG1AE	FMG1BE	FMG1DE	FMG1GE	FMG1JE
Thermal resistance	$R_{J-A}$	/W	270 <sup>1</sup>				
	$R_{J-L}$		85 <sup>1</sup>				
	$R_{J-C}$		60 <sup>2</sup>				

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.

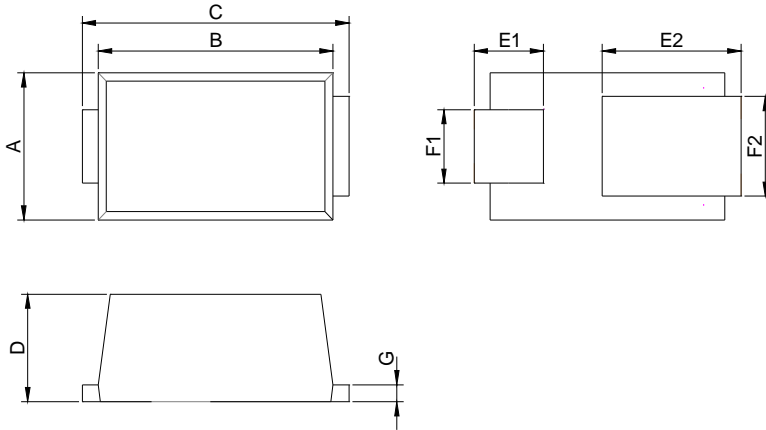


# FMG1AE THRU FMG1JE

## Ordering Information (Example)

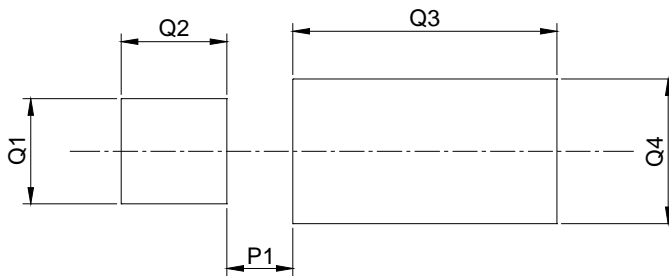
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g °)	MINIMUM PACKAGE(pcs °)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FMG1AE~ FMG1JE	F1	Approximate 0.008	3000	120000	7" reel

## Outline Dimensions



SOD-323HE		
Dim	Millimeters	
	Min	Max
A	1.20	1.40
B	2.10	2.30
C	2.30	2.70
D	0.90	1.00
E1	0.55	0.75
E2	1.10	1.50
F1	0.55	0.75
F2	0.78	0.98
G	0.12	0.27

## Suggested pad layout



SOD-323HE	
Dim	Millimeters
P1	0.50
Q1	0.80
Q2	0.80
Q3	2.00
Q4	1.10



## FMG1AE THRU FMG1JE

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