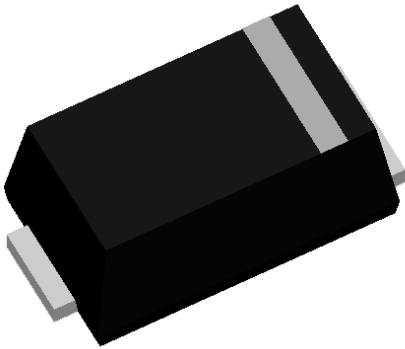


Surface Mount General Purpose Rectifier

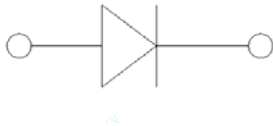


Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- 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_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FMG1ME
Device marking code			1M
Repetitive peak reverse voltage	V _{RRM}	V	1000
Maximum RMS voltage	V _{RMS}	V	700
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	15
Current Squared Time @1ms≤t<8.3ms T _j =25°C	I ² t	A ² s	0.933
Storage temperature	T _{STG}	°C	-55 ~+150
Junction temperature	T _J	°C	-55 ~+150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FMG1ME
Maximum instantaneous forward voltage drop per diode	V _F	V	I _F =1.0A	1.2
Typical junction capacitance	C _J	pF	V _R =4V, 1 MHz	2.9
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	T _j =25°C	5
			T _j =125°C	50



■ Characteristics(Typical)

FIG1: I_o - T_c Curve

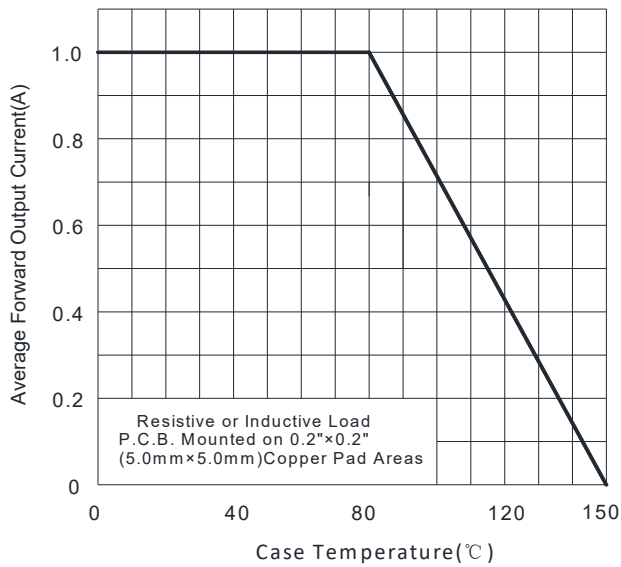


FIG2: Surge Forward Current Capability

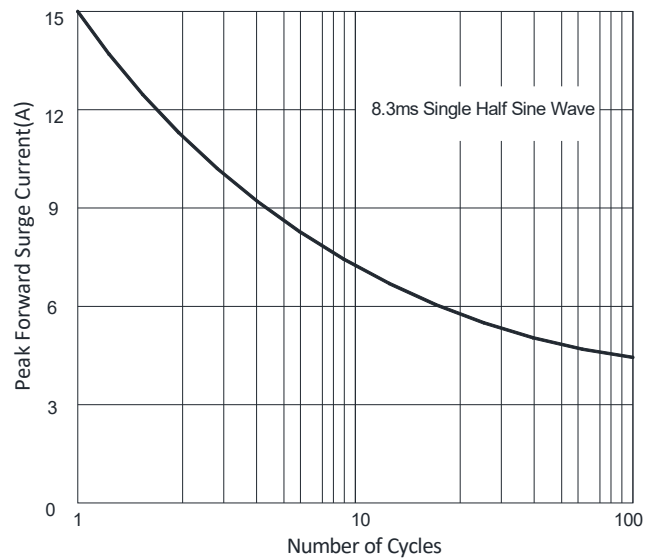


FIG3: Forward characteristics

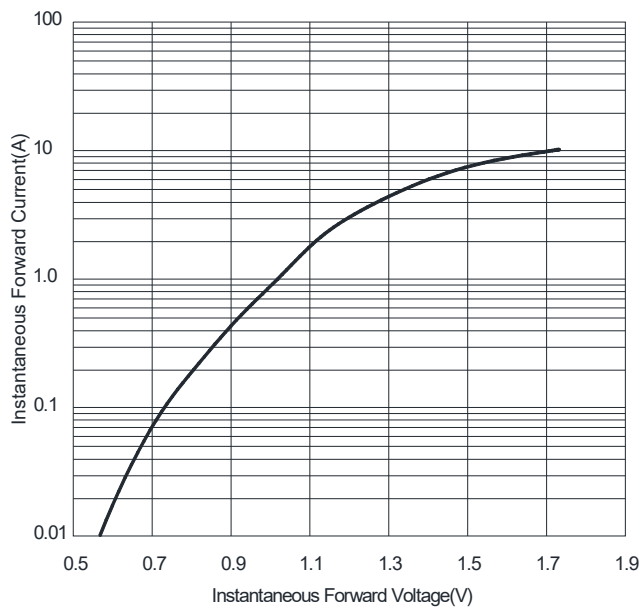
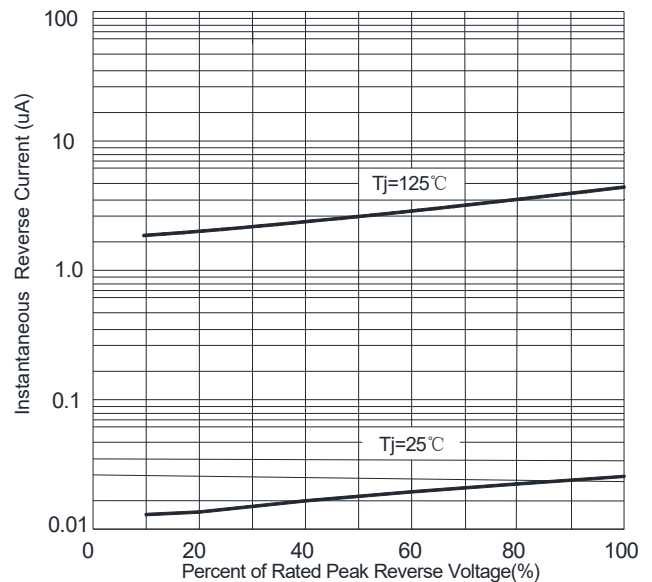


FIG4: Typical Reverse Characteristics



■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FMG1ME
Thermal resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	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.

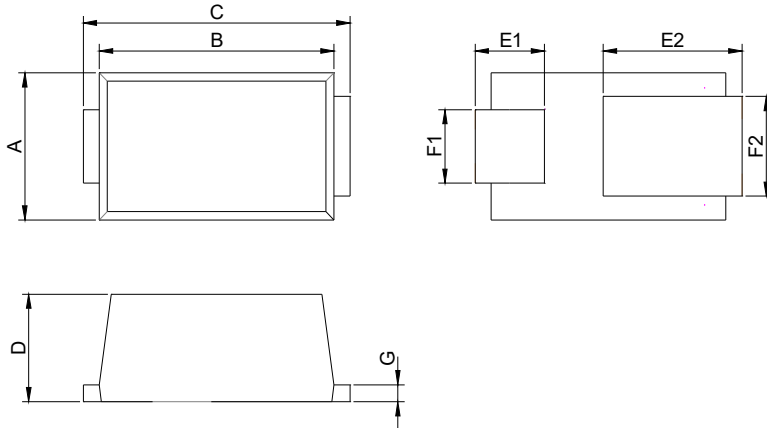


FMG1ME

■ Ordering Information (Example)

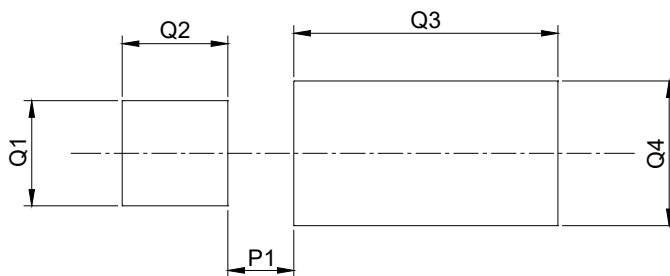
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FMG1ME	F1	Approximate 0.008	3000	120000	7" reel

■ 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



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, lifesaving, lifesustaining, or military, Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.