

M1 THRU M7

Surface Mount General Purpose Rectifier

Essential information; basic information

Features

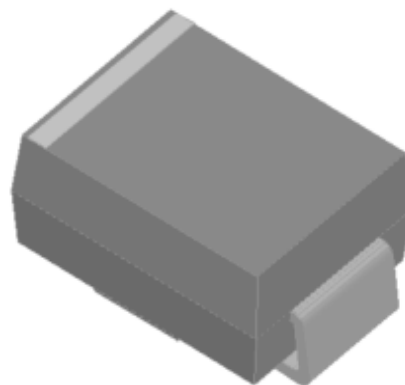
- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

- Package: SMA (DO-214AC)
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end



Maximum Ratings (Ta=25°C Unless otherwise specified)

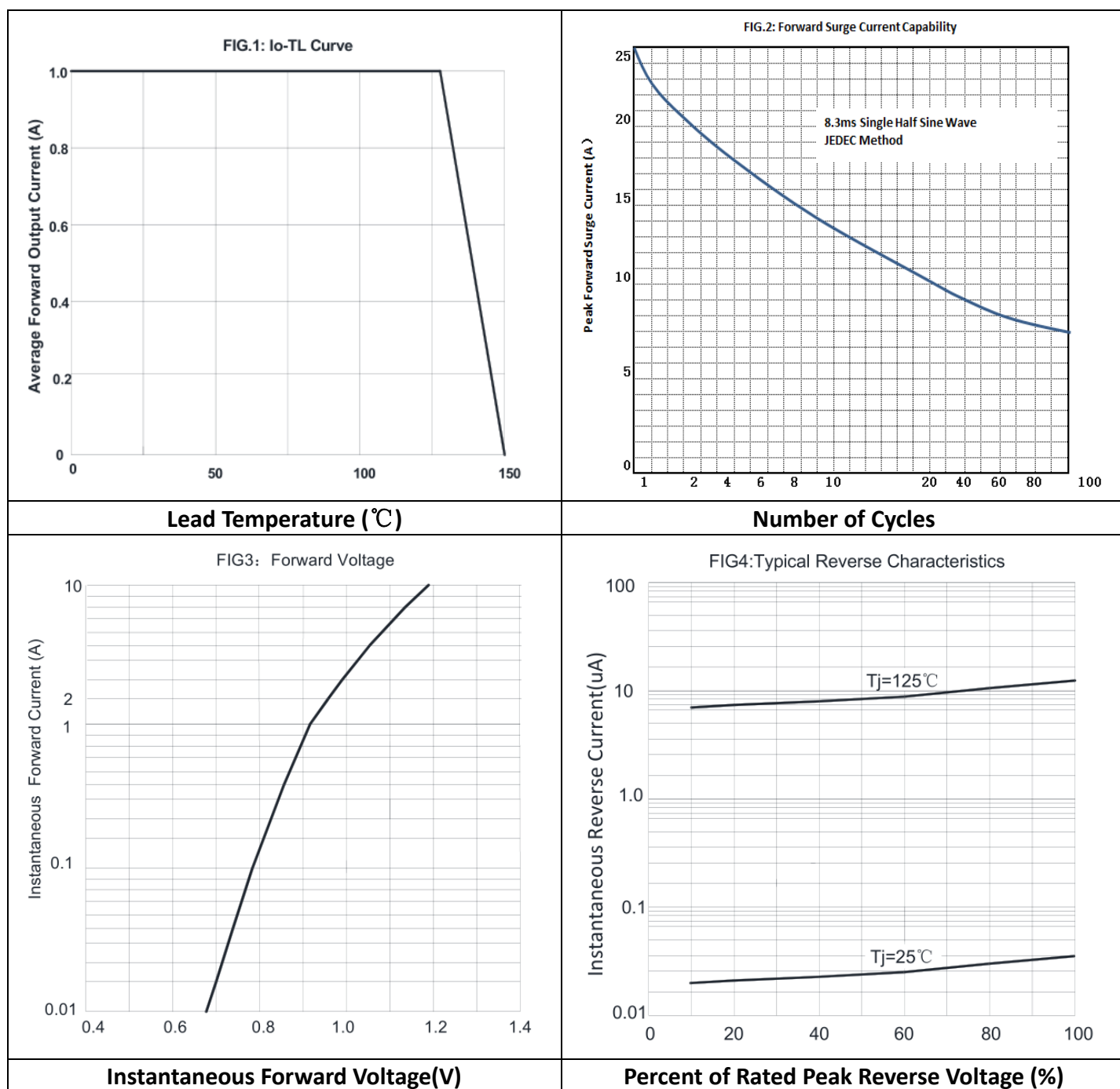
PARAMETER	SYMBOL	UNIT	M1	M2	M3	M4	M5	M6	M7
Maximum Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC Blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average Rectified Output Current @ 60Hz sine wave, resistance load, TL (Fig.1)	IO	A	1.0						
Forward Surge Current (Non-repetitive) @ 60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	25						
Storage temperature	Tstg	°C	-55 ~ +150						
Junction temperature	Tj	°C	-55 ~ +150						
Maximum instantaneous forward voltage drop per diode	VF (IFM=1.0A)	V	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	IR (Tj = 25°C)	μA	5						
	IR (Tj = 125°C)		100						

Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	M1	M2	M3	M4	M5	M6	M7
Typical Thermal resistance	R θ J-A ⁽¹⁾	°C/W	70						
	R θ J-L ⁽¹⁾		25						
	R θ J-C ⁽¹⁾		20						

Note:(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

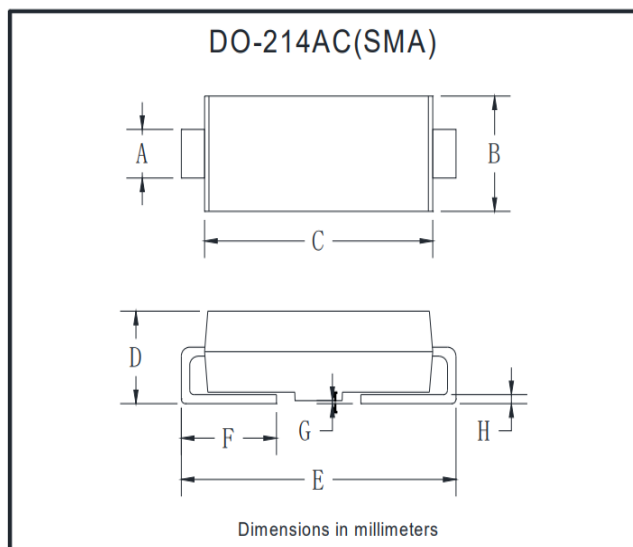
Characteristics (Typical)



Ordering Information (Example)

type specification	manner of packin	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
M1-M7 (SMA)	T/B	2000	10000	100000	7" reel
		5000	10000	100000	11" reel
		5000	10000	100000	13" reel

Outline Dimensions



DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.06	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41
G	0.08	0.20
H	0.15	0.31

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