

SMAG Plastic-Encapsulate Diodes

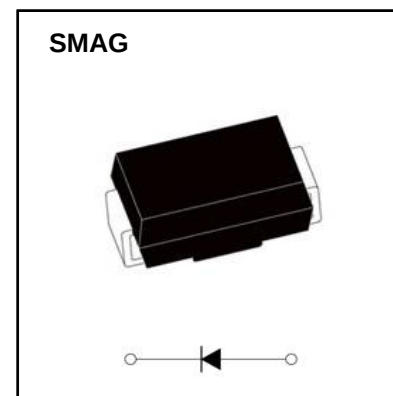
General Purpose Rectifier

Features

- I_o 1A
- V_{RRM} 2000V
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction

Mechical Data

- Case: JEDEC DO-214AC molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	HD20G
Repetitive Peak Reverse Voltage	V_{RRM}	V		2000
Maximum RMS Voltage	V_{RMS}	V		1400
Maximum DC Blocking Voltage	V_{DC}	V		2000
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load	1
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$	30
Junction Temperature	T_J	$^{\circ}C$		-55~+ 150
Storage Temperature	T_{STG}	$^{\circ}C$		-55 ~ +150

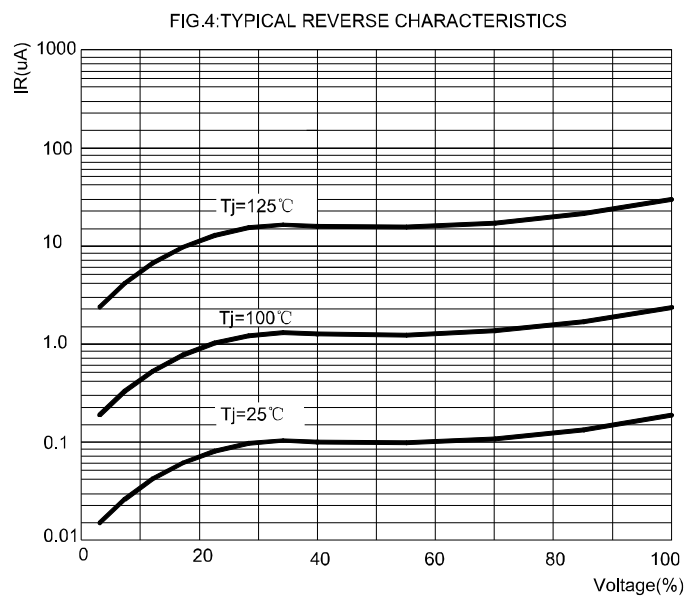
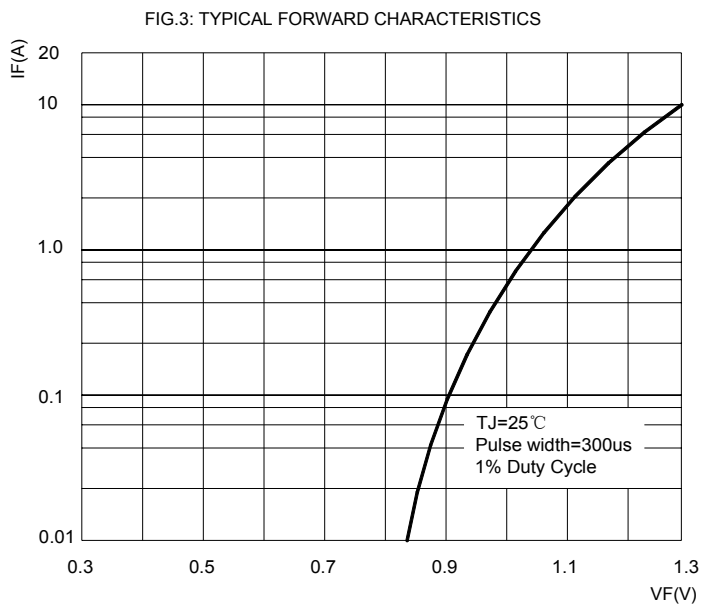
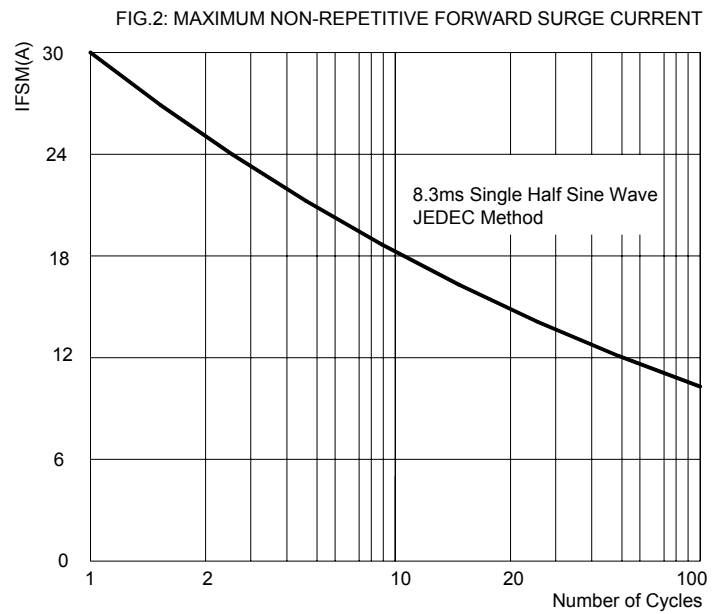
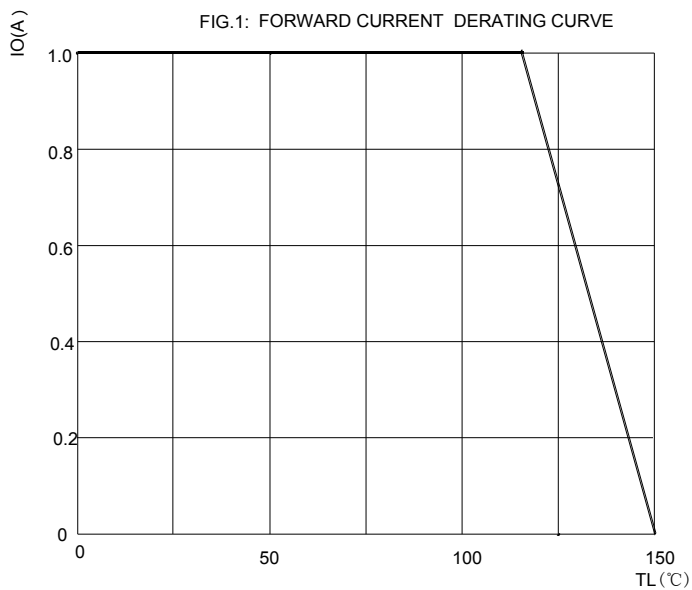
Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=1.0A$		1.2
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$	5
	I_{RRM2}			$T_a=125^{\circ}C$	50
Juction Capacitance (Typical)	C_j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.		5
Thermal Resistance (Typical)	$R_{\theta JA}$	$^{\circ}C/W$	Between junction and ambient		75
	$R_{\theta JL}$		Between junction and lead		27

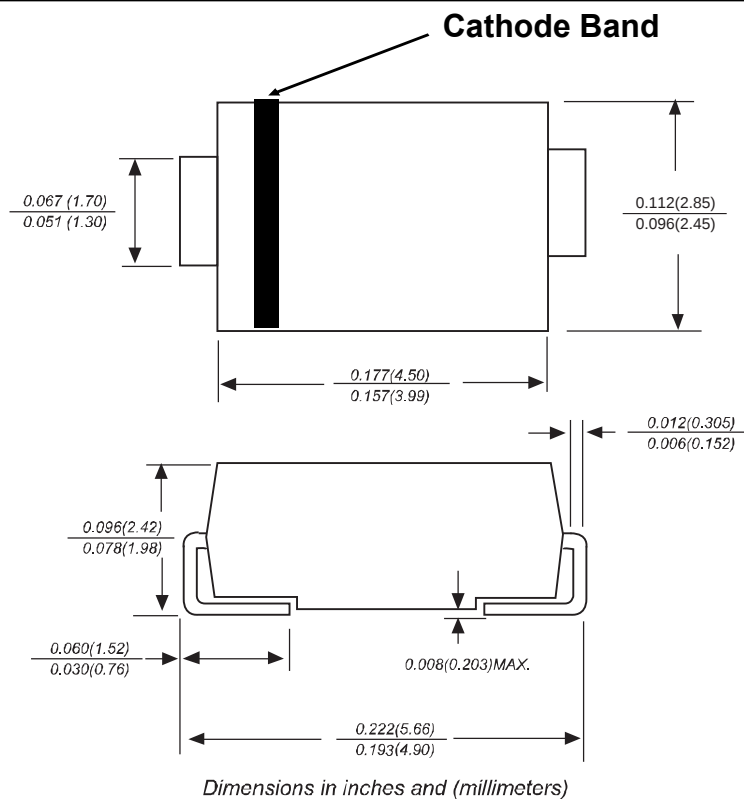
Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on FR4 PCB double sided copper mini pad

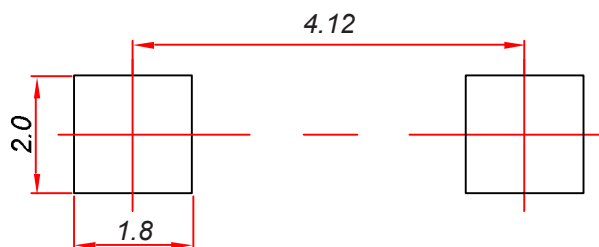
Typical Characteristics



SMAG Package Outline Dimensions



SMAG Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Ordering Information

Part Number	Package	Shipping Quantity
HD20G	SMAG	5000/tape&Reel

Marking Diagram



Reel Taping Specifications For Surface Mount Devices- SMAG

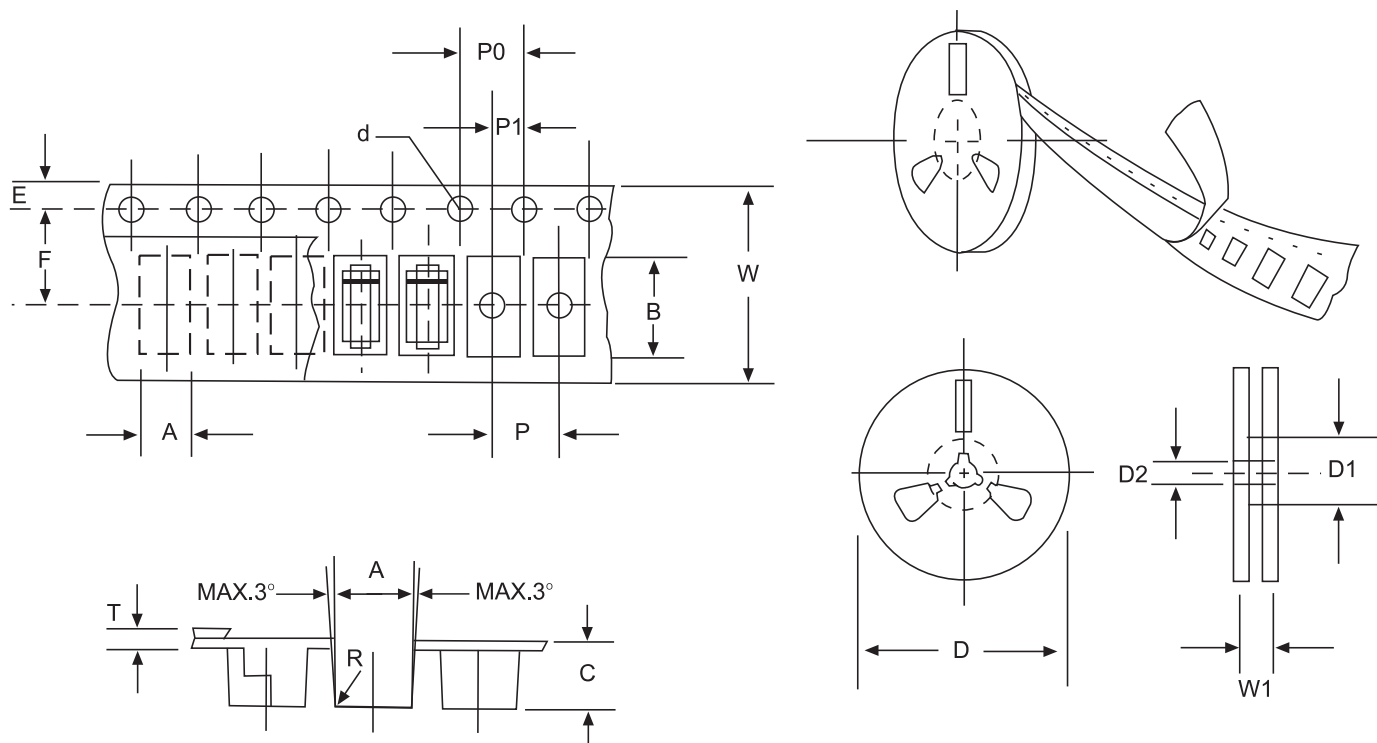


Fig:CONFIGURATION OF FLAT MELF TAPING

ITEM	SYMBOL	SMAG mm(inch)
Carrier width	A	2.79±0.1(0.110±0.004)
Carrier length	B	5.33±0.1(0.210±0.004)
Carrier depth	C	2.36±0.1(0.093±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	279±2.0 (11± 0.079)
Reel inner diameter	D1	75 ±1.0 (2.95 ±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Sprocket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	5.5±0.05(0.217±0.002)
Punch hole pitch	P	4.0±0.1(0.157±0.004)
Sprocket hole pitch	P0	4.0±0.1(0.157±0.004)
Embossment center	P1	2.0±0.1(0.079±0.004)
Total tape thickness	T	0.28±0.02(0.011 ±0.0008)
Tape width	W	12.0±0.2(0.472±0.008)
Reel width	W1	16.8±2.0(0.661±0.079)

NOTE:Devices are packde in accordance with EIA standard RS-481-A and specification given above.