HIGH DIODE

HD320

RoHS COMPLIANT

HALOGEN FREE

SMBG Plastic-Encapsulate Diodes

General Purpose Rectifier

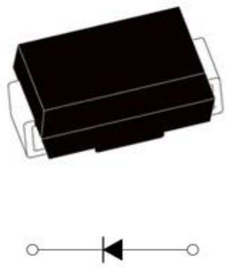
Features

- I_O 3A
- VRRM 2000V
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction

Mechical Data

- Case:JEDEC DO-214AA molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end

SMBG



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	HD320
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	3
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave,1 cycle, Ta=25℃	100
Junction Temperature	T_J	℃		-55~+150
Storage Temperature	T_{STG}	℃		-55 ~ +150

Electrical Characteristics (T_a=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=3.0A		1.2
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	T_a=25℃	5
	I_{RRM2}			T_a=125℃	50
Thermal Resistance (Typical)	$R_{\theta J\text{-}A}$	℃/W	Between junction and ambient		65
	$R_{\theta J\text{-}L}$		Between junction and lead		25
	$R_{\theta J\text{-}C}$		Between junction and case		23

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

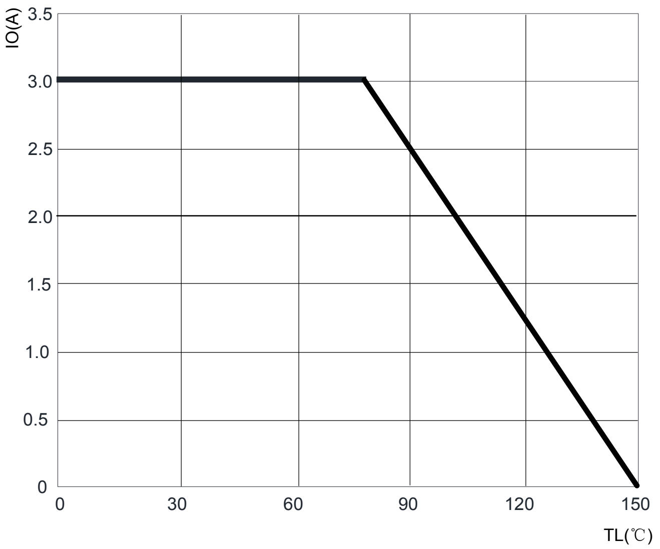


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

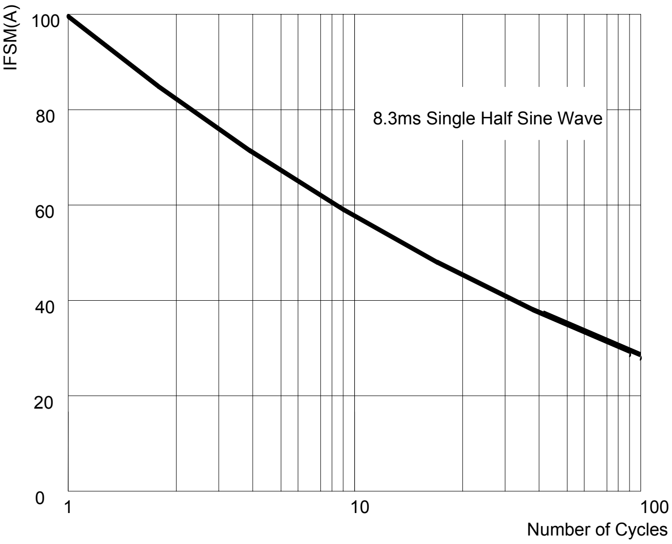


FIG.3: TYPICAL FORWARD CHARACTERISTICS

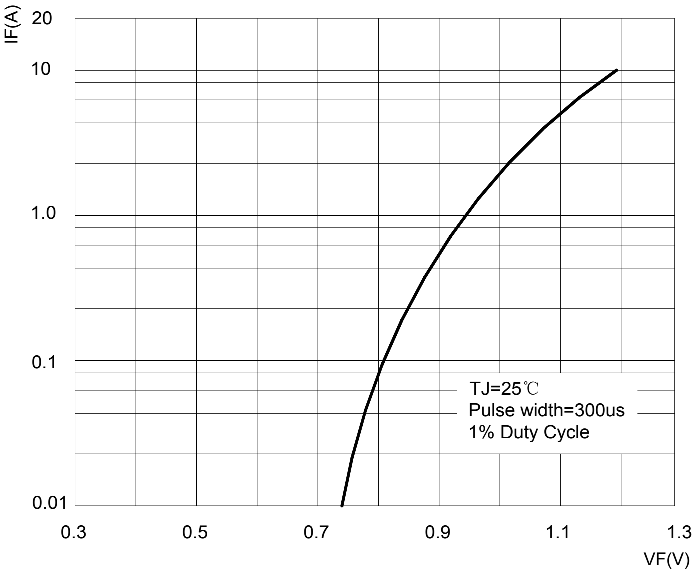
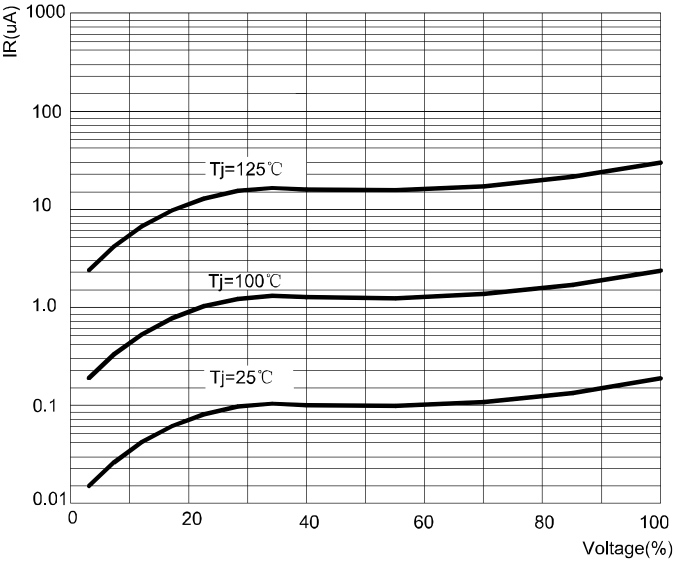
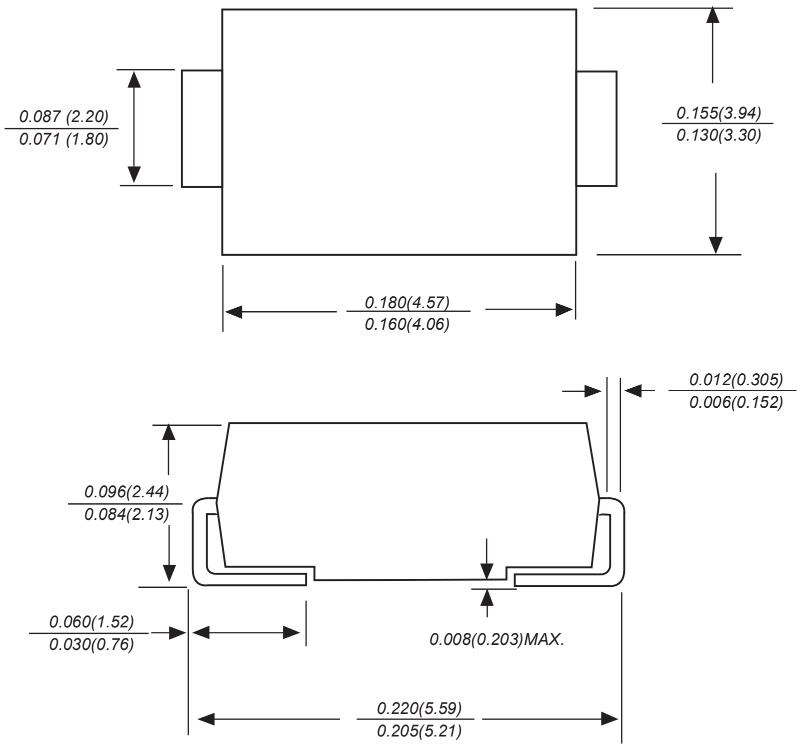


FIG.4:TYPICAL REVERSE CHARACTERISTICS

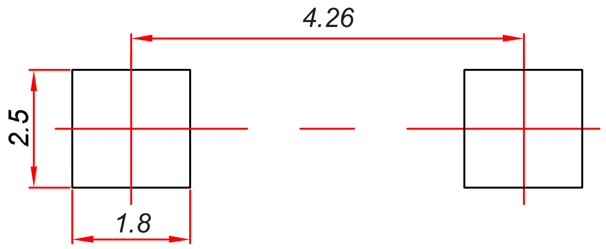


SMBG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMBG Suggested Pad Layout

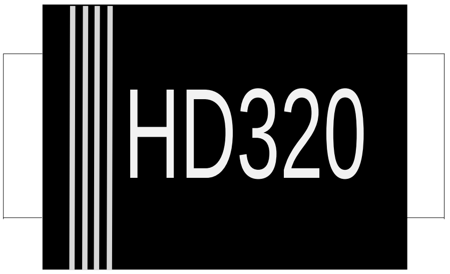


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

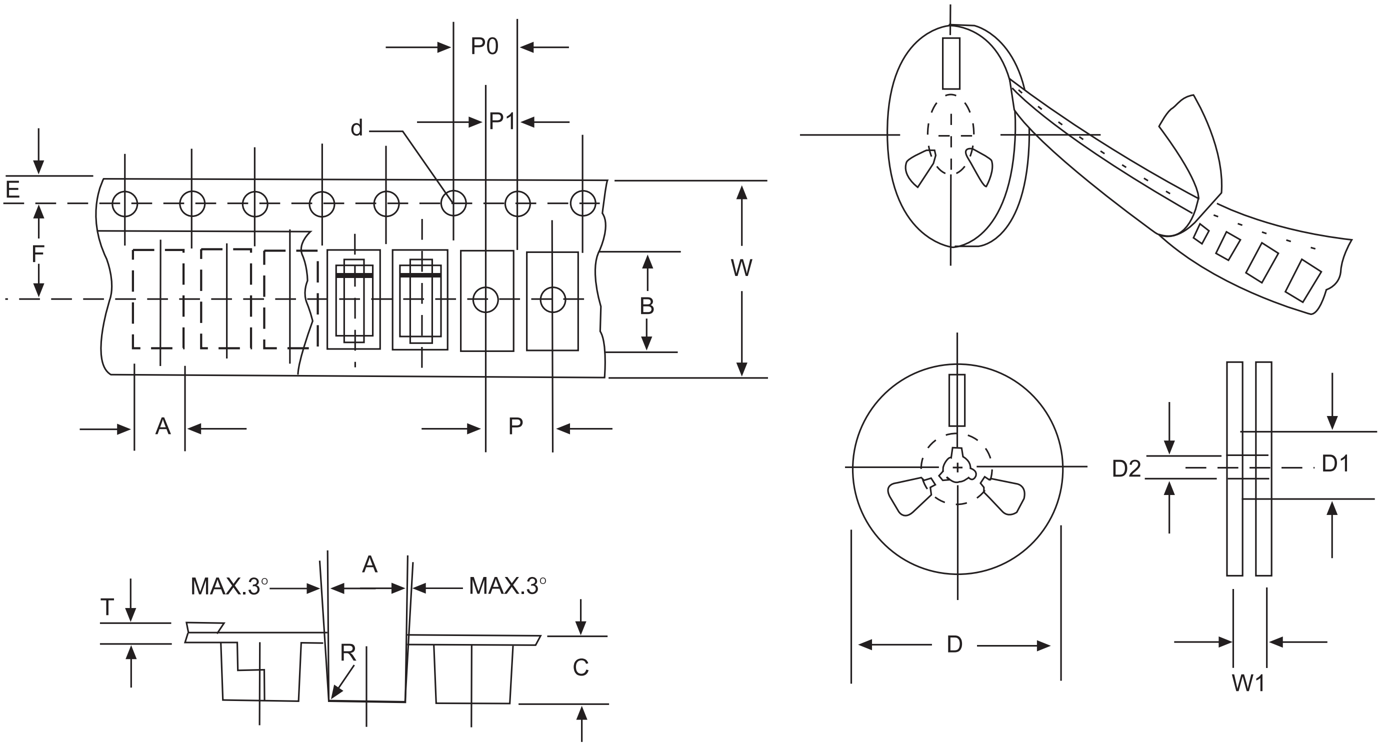
Ordering Information

Part Number	Package	Shipping Quantity
HD320	SMBG	3000/tape&Reel

Marking Diagram



Reel Taping Specifications For Surface Mount Devices-SMBG



FIG：CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMBG mm(inch)
Carrier width	A	4.09±0.1(0.161±0.004)
Carrier length	B	5.82±0.1(0.229±0.004)
Carrier depth	C	2.50±0.1(0.100±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	330±2.0(13±0.079)
Reel inner diameter	D1	75±1.0 (2.95±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Strocket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	5.65±0.05(0.222±0.002)
Punch hole pitch	P	8.0±0.1(0.315±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)
Totall tape thickness	T	0.32±0.1(0.013±0.004)
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.