

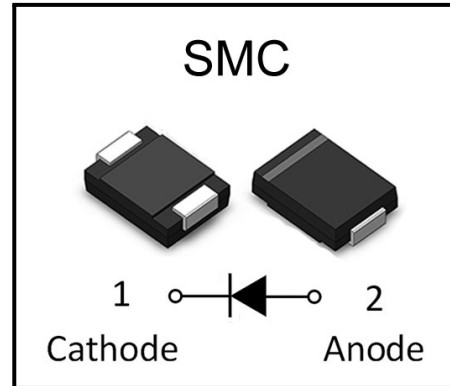
# GS5A-GS5M

Rectifier Diode

## 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

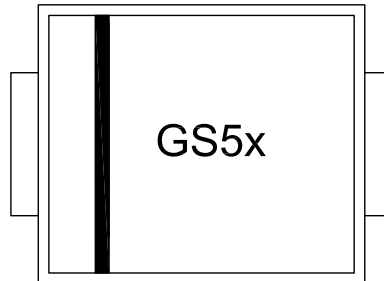
## Package



## Description

- Package: DO-214AB (SMC)
- 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: Color band denotes the cathode end

## Making Code



## Ordering information

Part Number	GS5A	GS5B	GS5D	GS5G	GS5J	GS5K	GS5M
Marking	GS5A	GS5B	GS5D	GS5G	GS5J	GS5K	GS5M
Base qty	3K	3K	3K	3K	3K	3K	3K



# GS5A-GS5M

Rectifier Diode

Maximum Ratings and Electrical Characteristics@T<sub>A</sub>=25°C unless otherwise noted

Symbol	Parameters	GS5A	GS5B	GS5D	GS5G	GS5J	GS5K	GS5M	Units
V <sub>RRM</sub>	Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
V <sub>RMS</sub>	Maximum RMS Voltage	35	70	140	280	420	560	700	V
V <sub>DC</sub>	Maximum DC Blocking Voltage	50	100	300	400	600	800	1000	V
I <sub>AV</sub>	Maximum Average Forward Rectified Current	5.0							A
I <sub>FSM</sub>	Forward Surge Current@60Hz Half-sine wave, 1 cycle, T <sub>J</sub> =25°C	150							A
	Forward Surge Current@1ms, quare wave, 1 cycle, T <sub>J</sub> =25°C	300							
V <sub>F</sub>	Maximum Forward Voltage@I <sub>FM</sub> =5.0A	1.1							V
I <sub>R</sub>	Maximum DC reverse current@T <sub>J</sub> =25°C	5							uA
	Maximum DC reverse current@T <sub>J</sub> =125°C	100							
I <sup>2</sup> t	Current squared time@1ms≤t≤8.3ms T <sub>J</sub> =25°C	94							A <sup>2</sup> s
C <sub>j</sub>	Typical junction capacitance Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	33							pF
R <sub>θJA</sub> <sup>(1)</sup>	Typical Thermal Resistance	48							°C/W
T <sub>J</sub>	Operating Junction Temperature Range	-55 to +150							°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150							°C

Note: (1)Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas



Typical Performance Characteristics ( $T_J = 25^\circ\text{C}$ , unless otherwise noted)

Figure 1:  $I_{AV}-T_L$  Curve

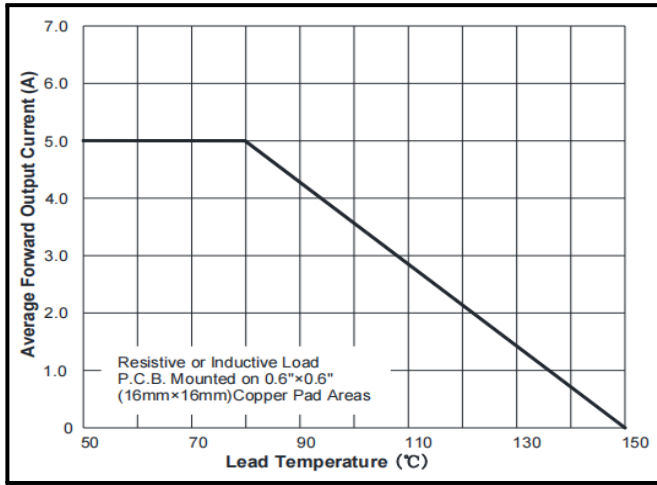


Figure 2: Surge Forward Current Capability

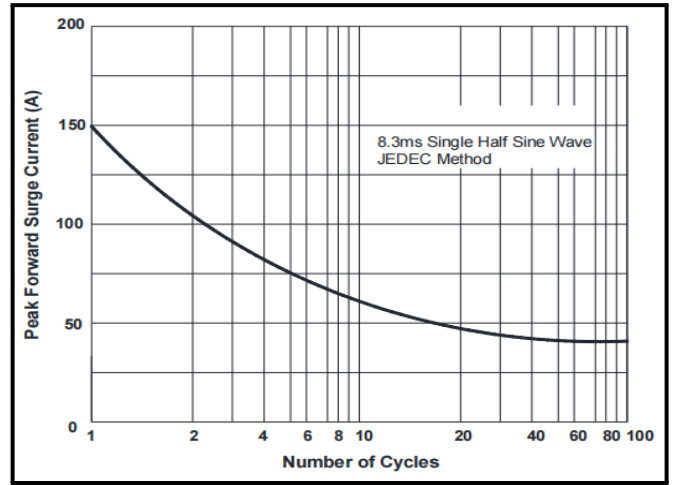


Figure 3: Typical Forward Voltage

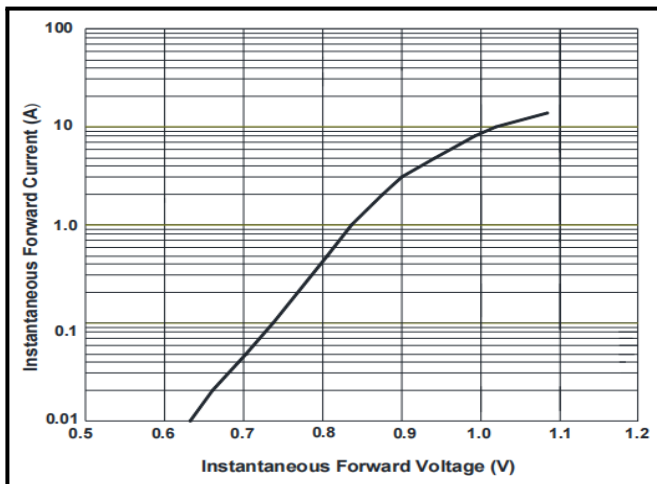
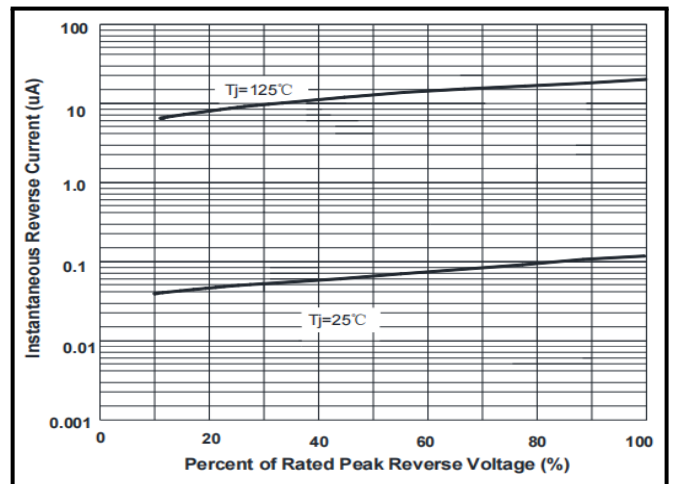


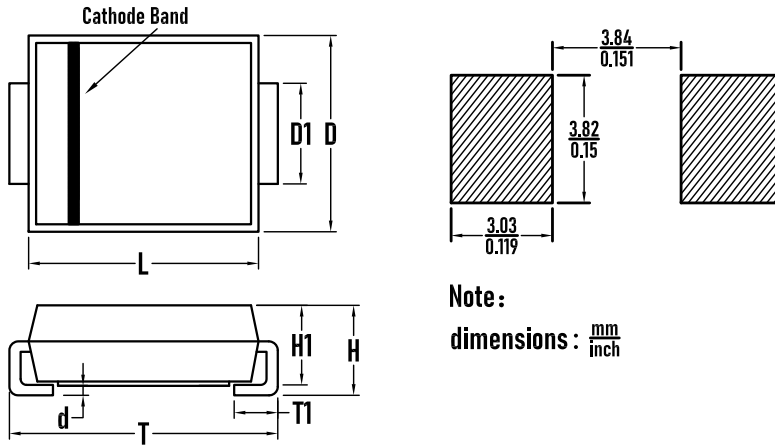
Figure 4: Typical Reverse Characteristics



# GS5A-GS5M

Rectifier Diode

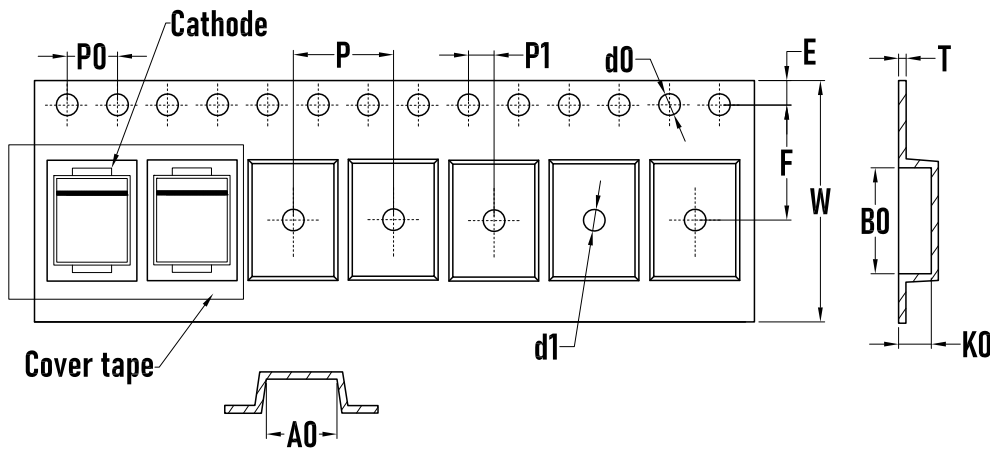
## Package Mechanical Data - SMC



Note:  
dimensions:  $\frac{\text{mm}}{\text{inch}}$

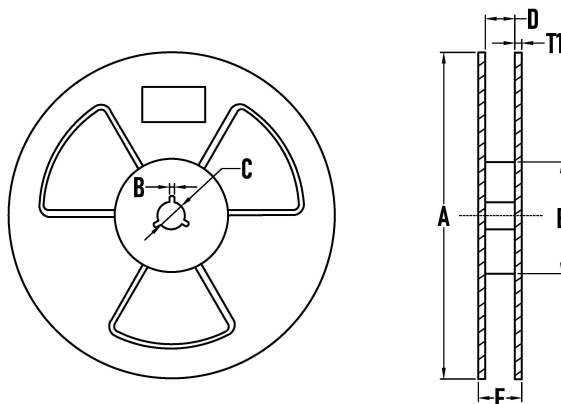
SYMBOL	MILLIMETER	
	MIN	MAX
D	5.75	6.15
D1	2.70	3.30
T	7.65	8.25
T1	0.90	1.50
d	—	0.3
H1	2.07	2.47
H	2.20	2.60
L	6.70	7.10

## Packaging Tape - SMC



SYMBOL	MILLIMETER
A0	6.00±0.1
B0	8.25±0.02
d0	1.50±0.1
d1	1.50±0.1
E	1.75±0.1
F	7.50±0.1
K0	2.70±0.1
P	8.00±0.1
P0	4.00±0.1
P1	2.00±0.05
W	16.00±0.1
T	0.22±0.02

## Packaging Reel



SYMBOL	MILLIMETER
A	323±2
B	3.0±0.2
C	15.0±0.5
D	16±2
E	73±2
T1	2.2±0.2
Quantity	3000PCS

