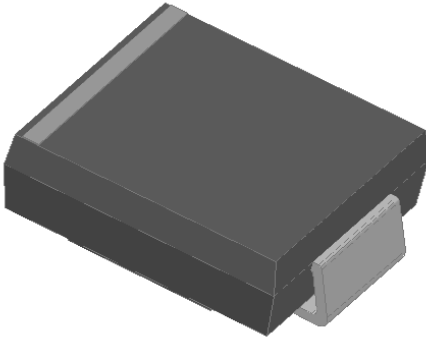


Surface Mount General Purpose Rectifier



Features

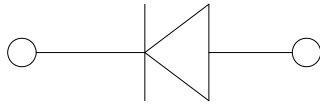
- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Solder dip 260 °C max. 10 s, per JESD 22-B106
- Part no. with suffix "Q" means AEC-Q101 qualified

Typical Applications

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

Mechanical Data

- **Package:** DO-214AB (SMC)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end



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

PARAMETER	SYMBOL	UNIT	GS5AQ	GS5BQ	GS5DQ	GS5GQ	GS5JQ	GS5KQ	GS5MQ
Device marking code			GS5A	GS5B	GS5D	GS5G	GS5J	GS5K	GS5M
Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS voltage	V_{RMS}	V	35	70	140	280	420	560	700
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (Fig.1)	I_o	A	5.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Ta=25°C	I_{FSM}	A	120						
Storage Temperature	T_{stg}	°C	-55 ~+150						
Junction Temperature	T_J	°C	-55 ~+150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GS5AQ	GS5BQ	GS5DQ	GS5GQ	GS5JQ	GS5KQ	GS5MQ
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=5.0A$	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	Ta=25°C	5						
			Ta=100°C	50						
Typical junction capacitance	C_J	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	55						



GS5AQ THRU GS5MQ

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

PARAMETER		SYMBOL	UNIT	GS5AQ	GS5BQ	GS5DQ	GS5GQ	GS5JQ	GS5KQ	GS5MQ
Thermal Resistance	Junction to ambient	R _{θJA}	°C/W	75 ^①						
	Junction to lead	R _{θJL}		13 ^①						

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

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GS5AQ~GS5MQ	F1	Approximate 0.253	3000	6000	42000	13" reel

■ Characteristics(Typical)

Fig.1:I_O-T_L Curve

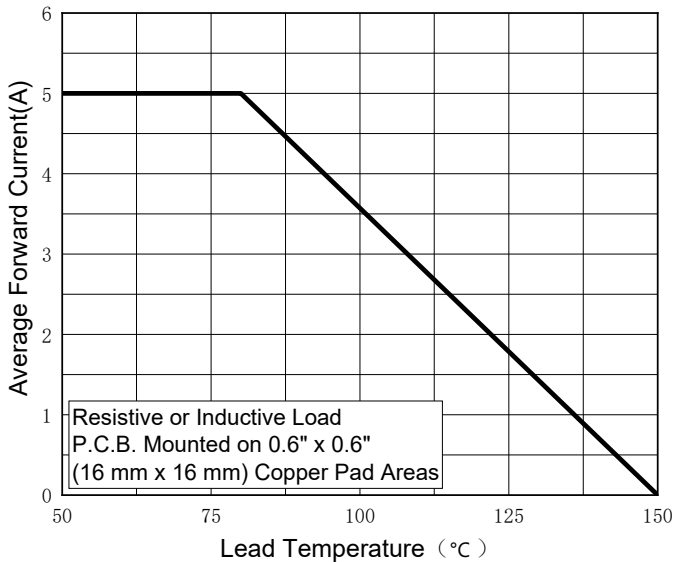


Fig.2:Forward Surge Current Capability

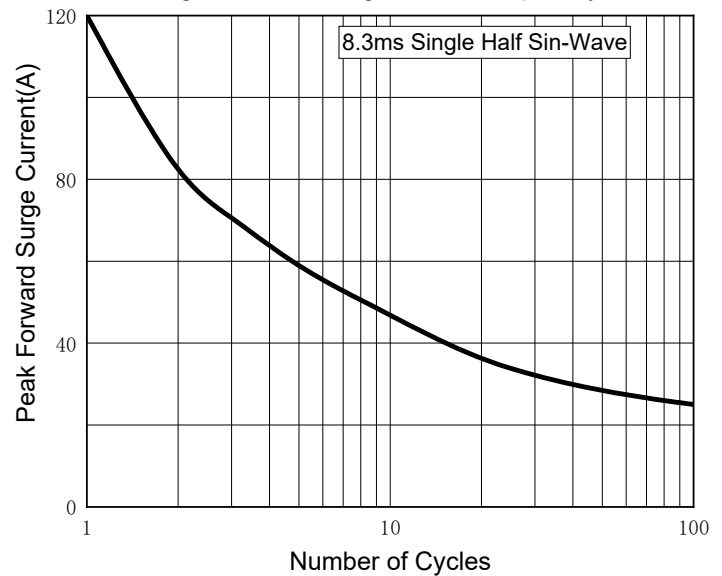


Fig.3:Typical Forward Characteristics

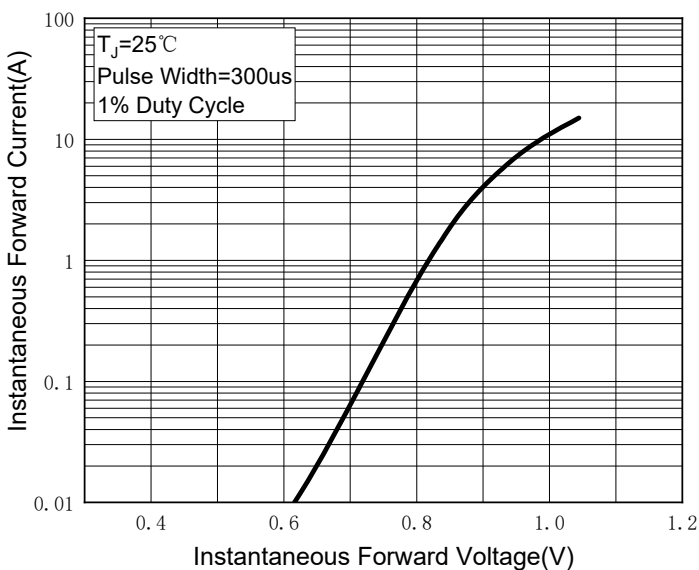
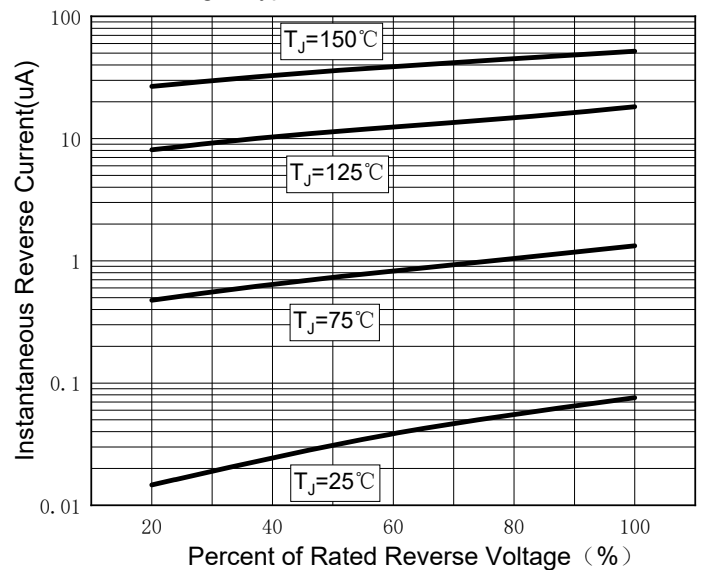


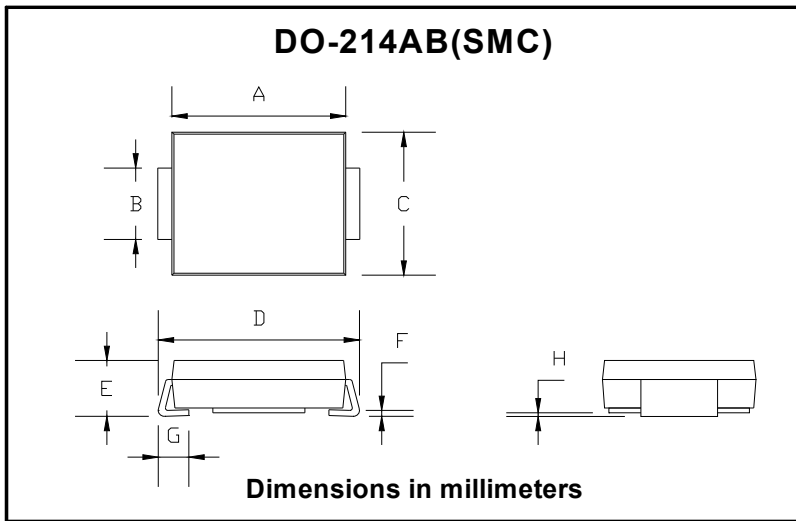
Fig.4:Typical Reverse Characteristics





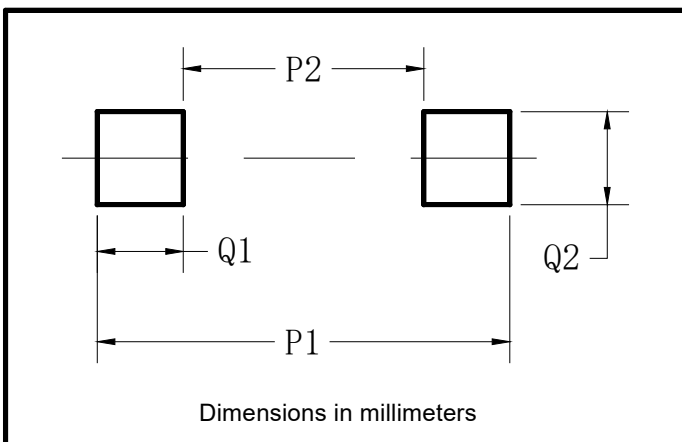
GS5AQ THRU GS5MQ

■ Outline Dimensions



DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.10	0.20

■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82



GS5AQ THRU GS5MQ

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.