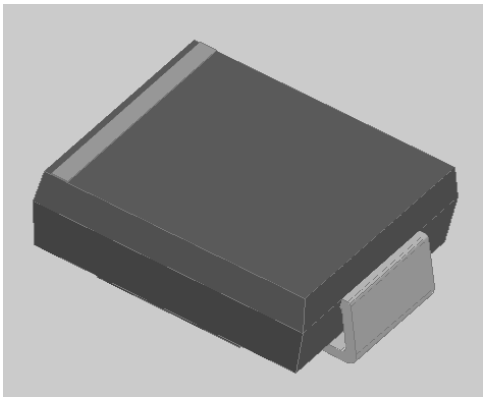
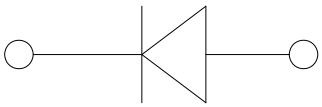
Surface Mount General Purpose Rectifier





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 (T_a=25 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	I_{FSM}	A	120						
Storage Temperature	T_{stg}		-55 ~+150						
Junction Temperature	T_J		-55 ~+150						

■Electrical Characteristics T_a=25 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	5						
			Ta=100	50						
Typical junction capacitance	C_J	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	55						

■Thermal Characteristics T_a=25 Unless otherwise specified

PARAMETER		SYMBOL	UNIT	GS5AQ	GS5BQ	GS5DQ	GS5GQ	GS5JQ	GS5KQ	GS5MQ
Thermal Resistance	Junction to ambient	$R_{\theta J-A}$	/W	75[1)]						
	Junction to lead	$R_{\theta J-L}$		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)

PREFERED 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	/	42000	13" reel

■ Characteristics(Typical)

Fig.1:I_O-T_L Curve

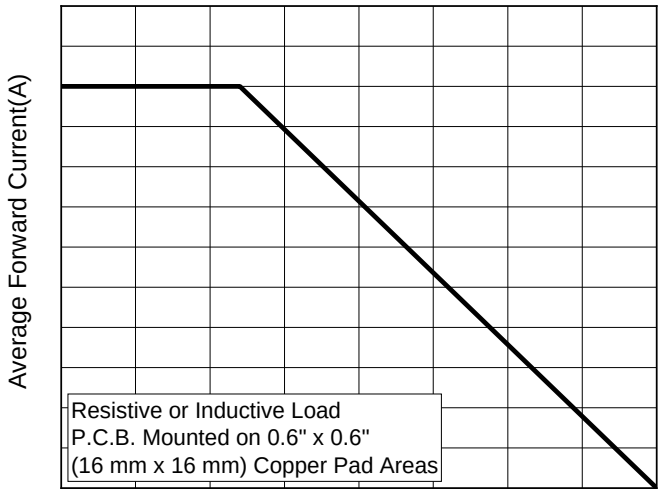
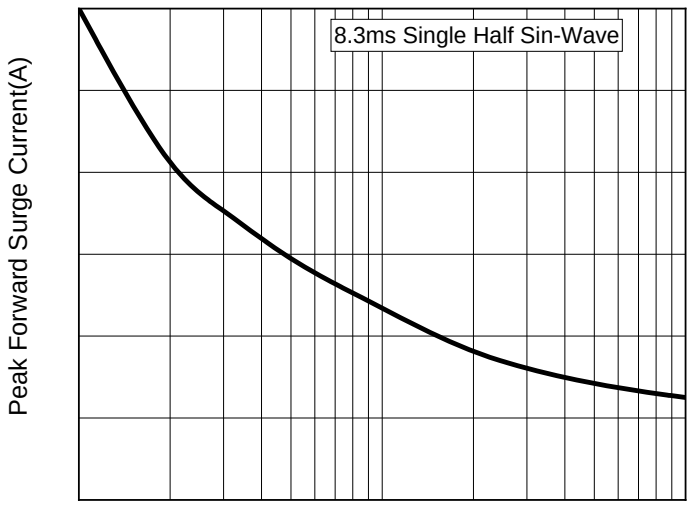


Fig.2:Forward Surge Current Capability



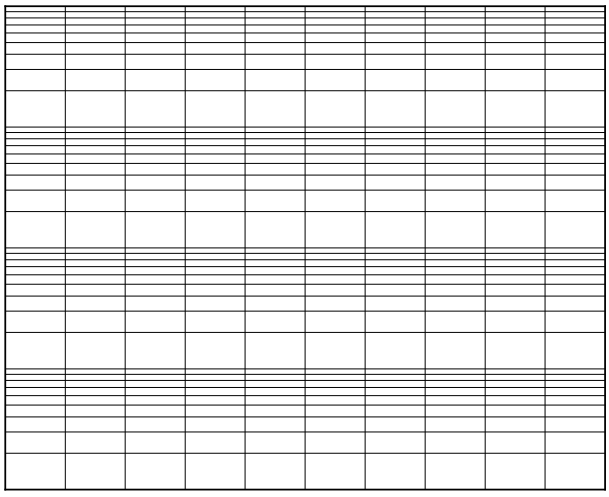
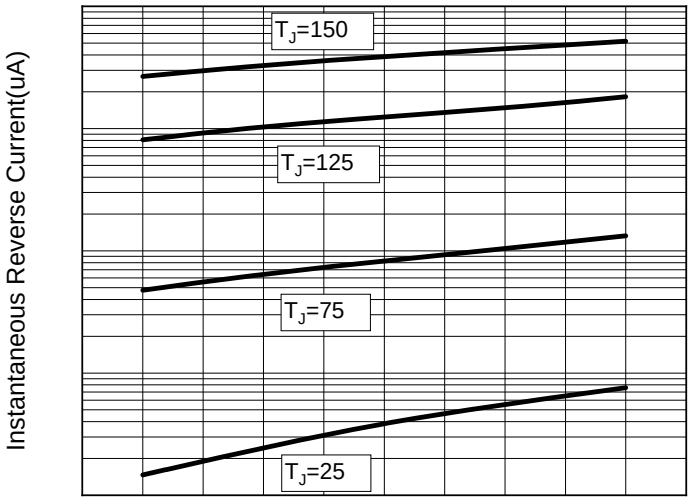
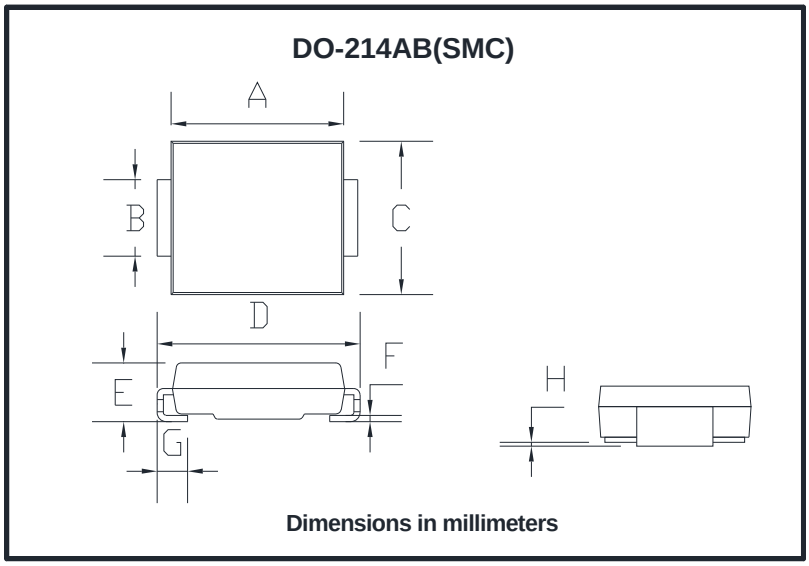


Fig.4:Typical Reverse Characteristics

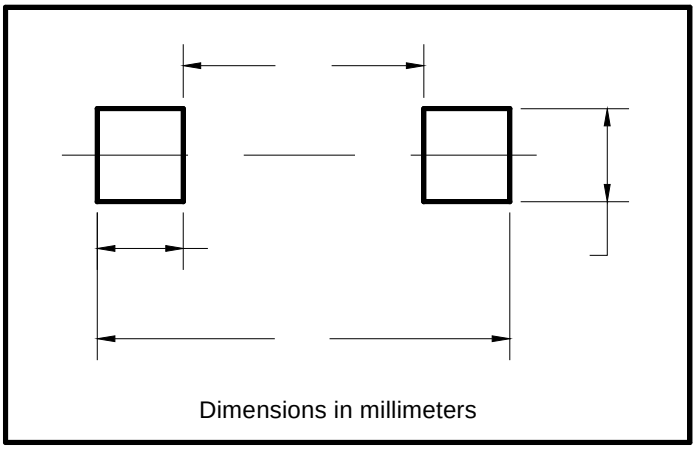


■ Outline Dimensions



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	0.05	0.20

■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82

Disclaimer

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