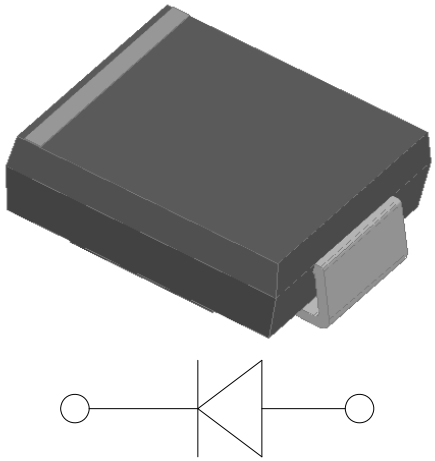
Surface Mount General Purpose Rectifier



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

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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GS5Z
Device marking code			GS5Z
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	2000
Maximum RMS Voltage	V_{RMS}	V	1400
Maximum DC Blocking Voltage	V_{DC}	V	2000
Average Rectified Output Current @60Hz sine wave, Resistance load, Tc (FIG.1)	I_O	A	5.0
Surge(non-repetitive) forward current @60Hz half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	200
Surge(non-repetitive) forward current @1ms half-sine wave,1 cycle, Ta=25℃			350
Current Squared Time @1ms≤t<8.3ms Ta=25℃	I^2t	A^2s	166
Storage Temperature	Tstg	℃	-55 ~ +150
Junction Temperature	Tj	℃	-55 ~ +150

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GS5Z
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=125℃	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C.	35

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	GS5Z
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	30[1)]
	$R_{\theta J-L}$		22[1)]
	$R_{\theta J-C}$		10[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

■ Characteristics(Typical)

FIG.1: Io-TC Curve

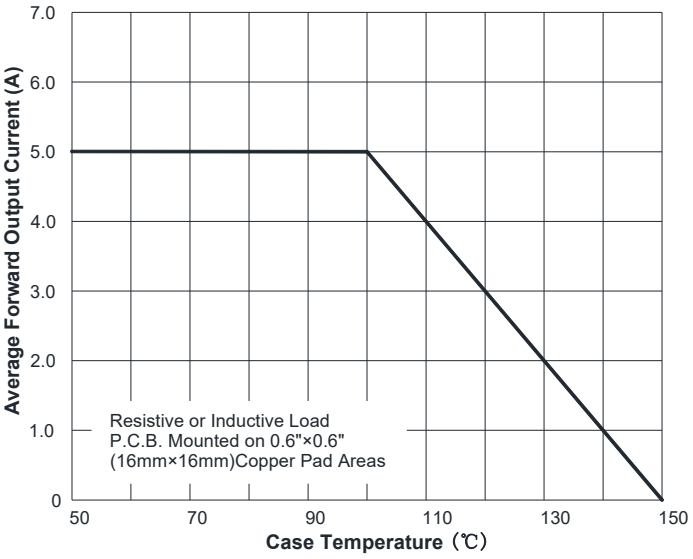


FIG.2: Forward Surge Currrent Capability

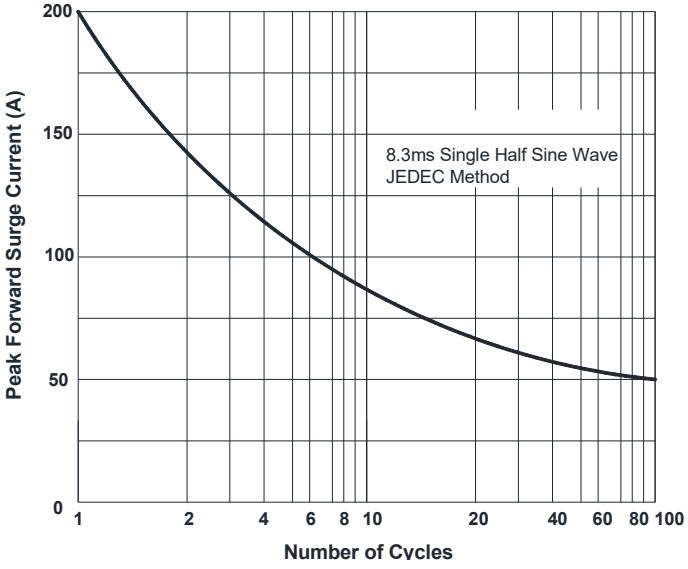


FIG.3: Typical Forward Voltage

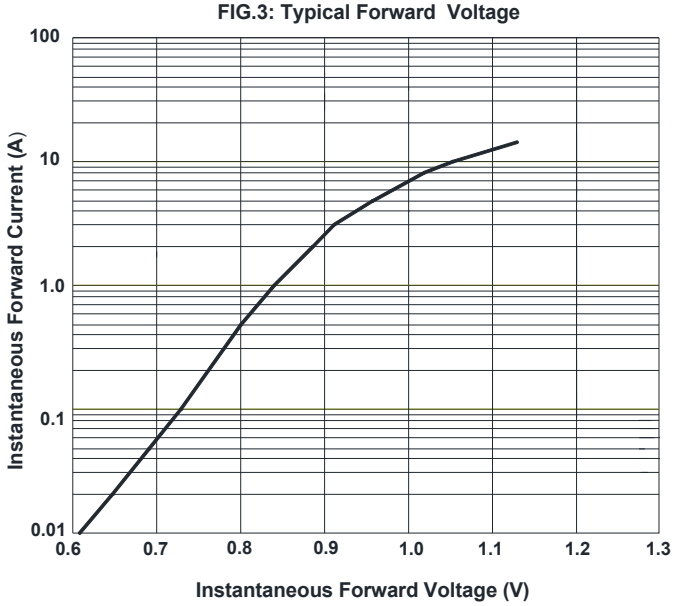
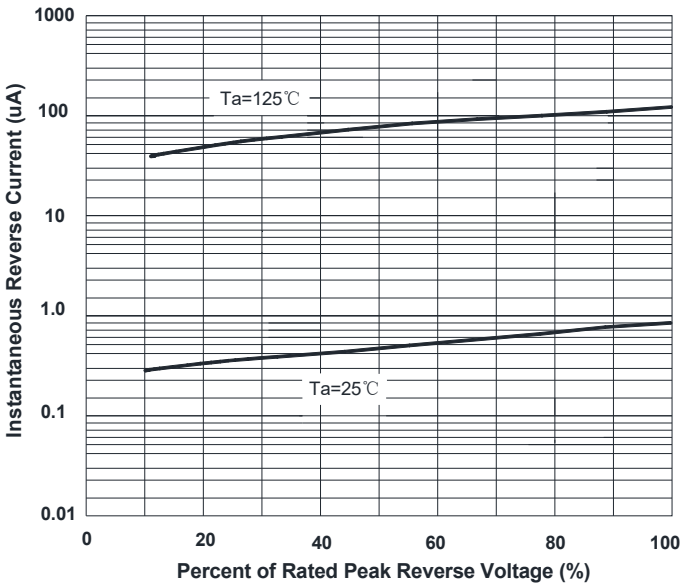
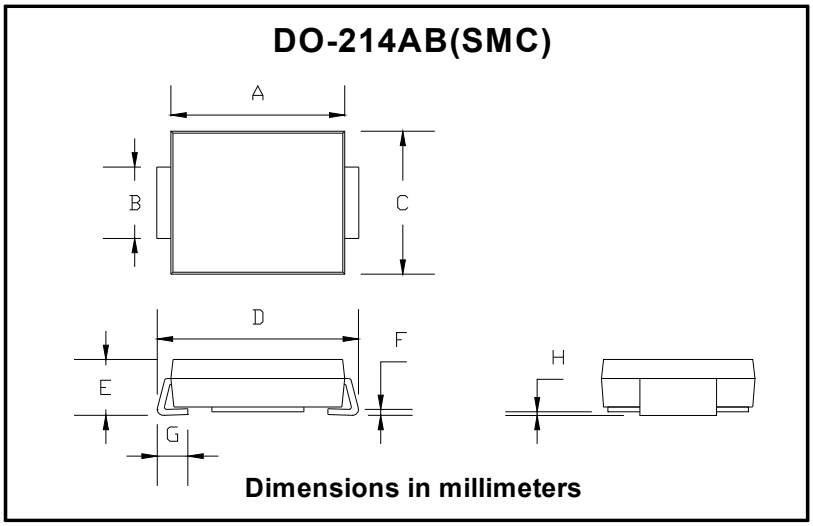


FIG.4: Typical Reverse Characteristics

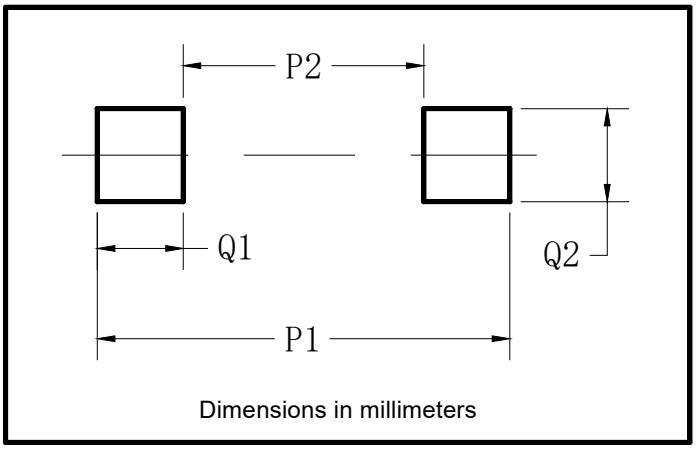


■ Outline Dimensions



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	0.10	0.20

■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82

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