

# **Surface Mount General Purpose Rectifier**





#### **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

#### **Typical Applications**

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

#### **Mechanical Data**

Package: DO-214AA (SMB)
 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: Cathode line denotes the cathode end

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

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PARAMETER	SYMBOL	UNIT	GS3AB	GS3BB	GS3DB	GS3GB	GS3JB	GS3KB	GS3MB
Device marking code			GS3AB	GS3BB	GS3DB	GS3GB	GS3JB	GS3KB	GS3MB
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	IO	Α	3.0						
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Ta=25°C	IFSM	Α	100						
Storage temperature	T <sub>stg</sub>	°C	-55~+150						
Junction temperature	Тј	°C	℃ -55~+150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GS3AB	GS3BB	GS3DB	GS3GB	GS3JB	GS3KB	GS3MB
Maximum instantaneous forward voltage drop per diode	VF	>	IFM=3.0A	1.15						
Maximum DC reverse current	loom		T <sub>a</sub> =25°C	5						
at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	μA	T <sub>a</sub> =125°C	100						

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

PARAMETER	SYMBOL	UNIT	GS3AB	GS3BB	GS3DB	GS3GB	GS3JB	GS3KB	GS3MB
Typical Thermal resistance	RøJ-A	°C/W	75 <sup>1)</sup>						
Typical Thermal resistance	RøJ-L	C/VV	201)						

Note:

### **■ Characteristics** (Typical)

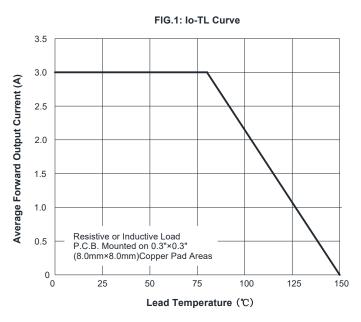


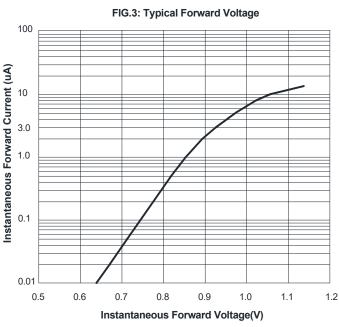
FIG.2: Forward Surge Current Capability

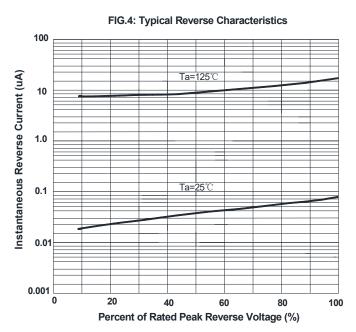
120

8.3ms Single Half Sine Wave JEDEC Method

20

Number of Cycles





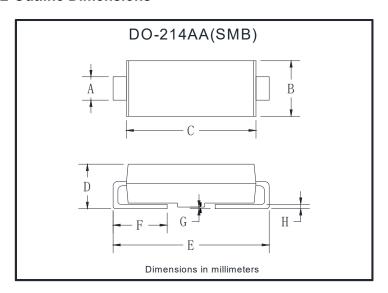
<sup>(1)</sup> Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas



## **■Ordering Information** (Example)

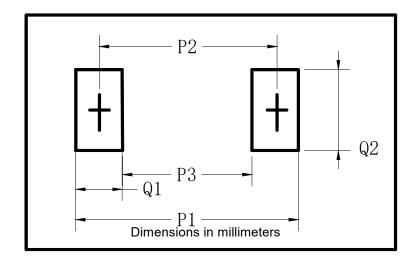
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GS3AB-GS3MB	F1	Approximate 0.096	3000	6000	48000	13" reel
GS3AB-GS3MB	F2	Approximate 0.096	750	3000	24000	7" reel
GS3AB-GS3MB	F3	Approximate 0.096	500	2000	16000	7" reel

#### **■ Outline Dimensions**



DO-214AA(SMB)					
Dim	Min	Max			
Α	1.85	2.15			
В	3.30	3.94			
С	4.25	4.75			
D	1.99	2.61			
Е	5.21	5.59			
F	0.90	1.41			
G	0.10	0.20			
Н	0.15	0.31			

### ■ Suggested pad layout



DO-214AA(SMB)				
Dim	Millimeters			
P1	6.8			
P2	4.3			
P3	1.8			
Q1	2.5			
Q2	2.3			



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