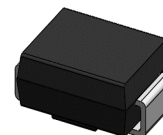**GOOD-ARK**

3A,50-1000V Standard Rectifiers

Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260℃/10 seconds

RoHS
COMPLIANT

SMB (DO-214AA)

Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings & Electrical Characteristics(TA=25℃ unless otherwise noted)

Parameter	Symbol	GN3AB	GN3BB	GN3DB	GN3GB	GN3JB	GN3KB	GN3MB	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	3							A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	100							A
Operating junction temperature range	T_J	-55 to +150							℃
Storage temperature range	T_{STG}	-55 to +150							℃

Thermal-Mechanical Specifications (TA=25℃ unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	85	℃ /W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	15	℃ /W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	20	℃ /W

Electrical Specifications (T$_A$=25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	GN3AB	GN3BB	GN3DB	GN3GB	GN3JB	GN3KB	GN3MB	Unit
Forward Drop Voltage	V$_F$	I$_F$=3A				1.15				V
Reverse leakage current @V$_R$	I$_R$	T$_J$=25℃				10				uA
		T$_J$=125℃				250				
Typical junction capacitance	C$_J$	4.0 V 1 MHZ				22				pF
Maximum reverse recovery time	trr	I$_F$=0.5A, I$_R$=1.0A, I$_{RR}$=0.25A				3				uS

Note：

1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

Ratings and Characteristics Curves
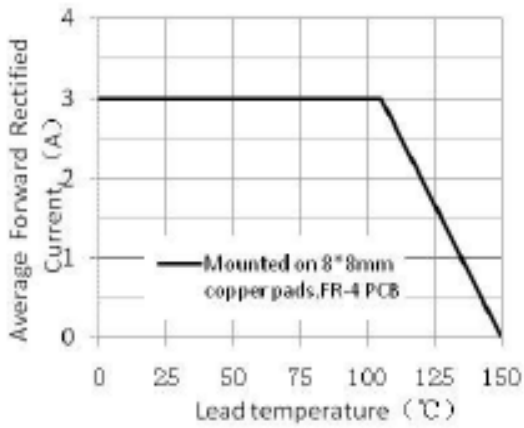
(T_A = 25℃ unless otherwise noted)

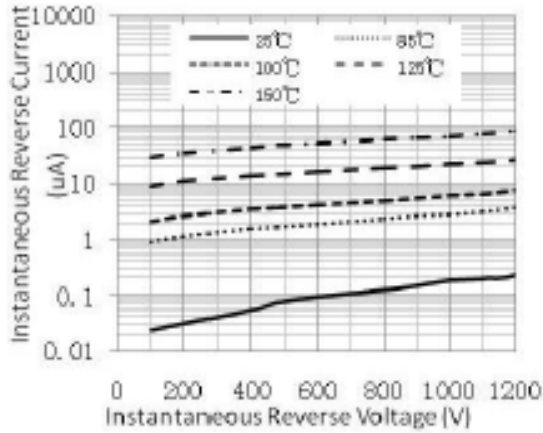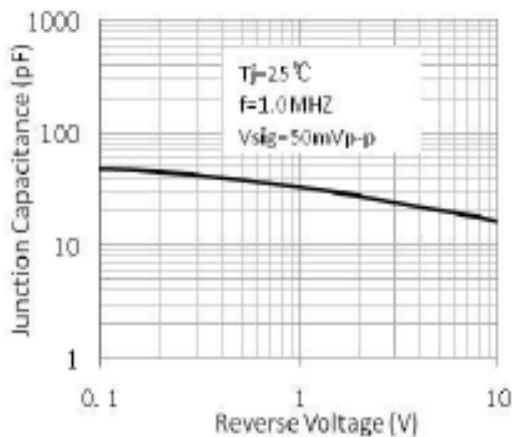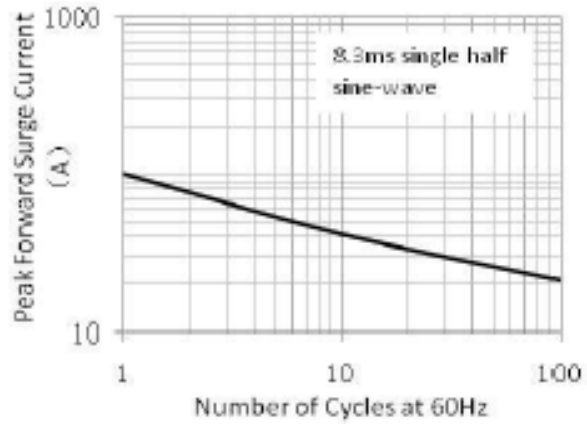Figure 1.Forward Current Derating Curve

Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

Figure 3. Typical Reverse Characteristics
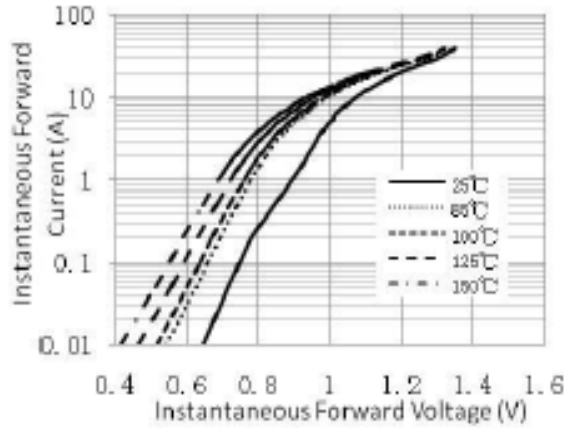
Figure 4. Typical Instantaneous Forward Characteristics

Figure 5. Typical Junction Capacitance
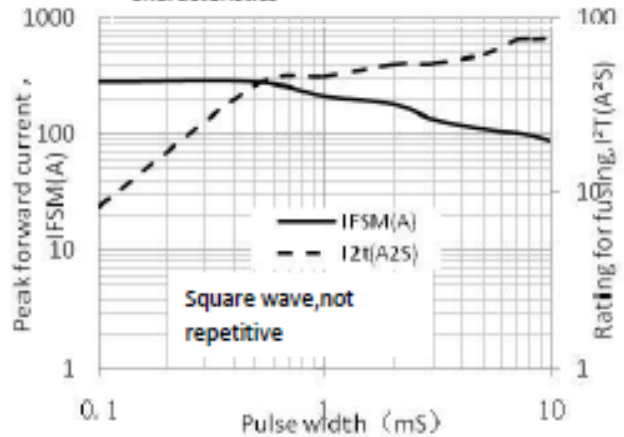
Figure 6. IFSM or I2T and pulse width

Package Outline Dimensions

in inches (millimeters)

SMB (DO-214AA)

Cathode Band

.082(2.08)/.076(1.93)
.147(3.73)/.137(3.48)
.187(4.75)/.167(4.25)
.103(2.61)/.078(1.99)
.056(1.41)/.035(.90)
.215(5.46)/.207(5.26)
.008(.20)/.002(.05)
.012(.31)/.006(.15)

Mounting Pad Layout

.063(1.60) REF
.114(2.90) REF
.091(2.30) REF
.24(6.10) REF
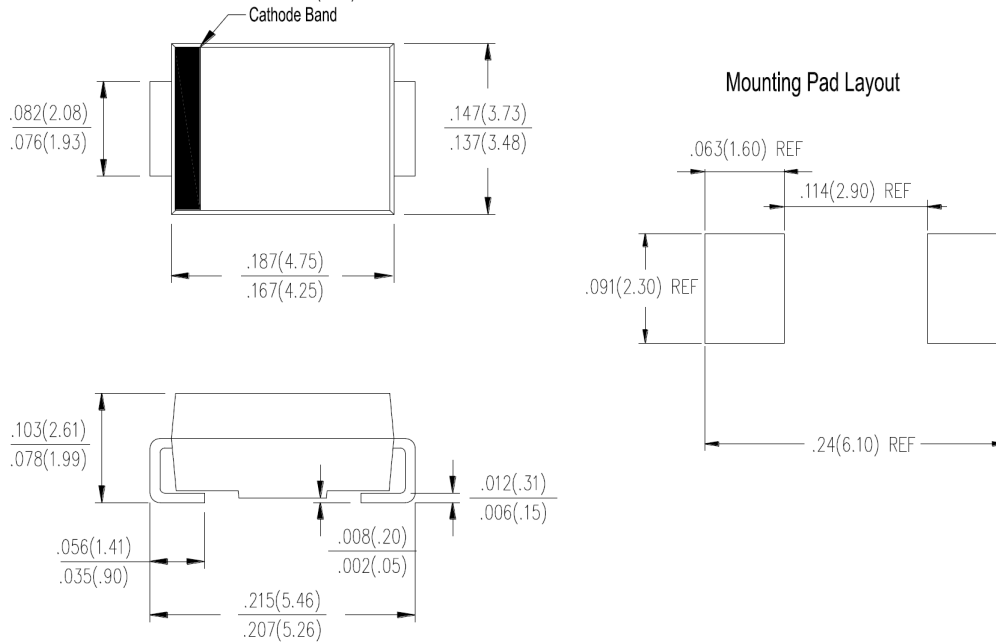
Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.10.13	Modify document format

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