

# GR3A THRU GR3M Fast Recovery Rectifier

### Features

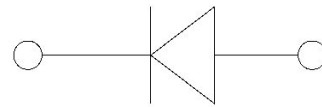
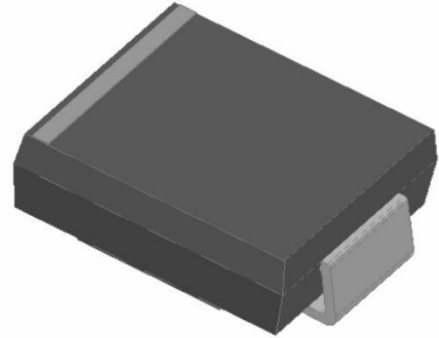
- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 265 °C max. 10 s, per JESD 22-B106

### Typical Applications

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

### Mechanical Data

- Package: 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	GR3						
			A	B	D	G	J	K	M
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V <sub>RMS</sub>	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V <sub>DC</sub>	V	50	100	200	400	600	800	1000
Average Forward Current @Half-sine wave, Resistance load, Tc(Fig.1)	I <sub>o</sub>	A	3.0						
Forward Surge Current (Non-repetitive) @60HZ sine wave, 1 cycle, Ta=25°C	I <sub>FSM</sub>	A	100						
Current squared time @1ms≤t8.3≤ms Ta=25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	41.5						
Thermal Resistance(Typical) @Between junction and ambient	R <sub>θJ-A</sub>	°C/W	50						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +150						

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

PARAMETER	Symbol	Unit	Conditions	GR3					
				A	B	D	G	J	K
Peak Forward Voltage	V <sub>FM</sub>	V	I <sub>F</sub> = 3.0A	1.3					
Peak Reverse Current	I <sub>RRM</sub>	μA	VR = V <sub>DC</sub> @Ta=25°C	10					
			VR = V <sub>DC</sub> @Ta=125°C	250					
Maximum reverse recovery time	T <sub>rr</sub>	ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	150			250		500



# GR3A THRU GR3M

## ■ Characteristics (Typical)

FIG.1: Io-TL Curve

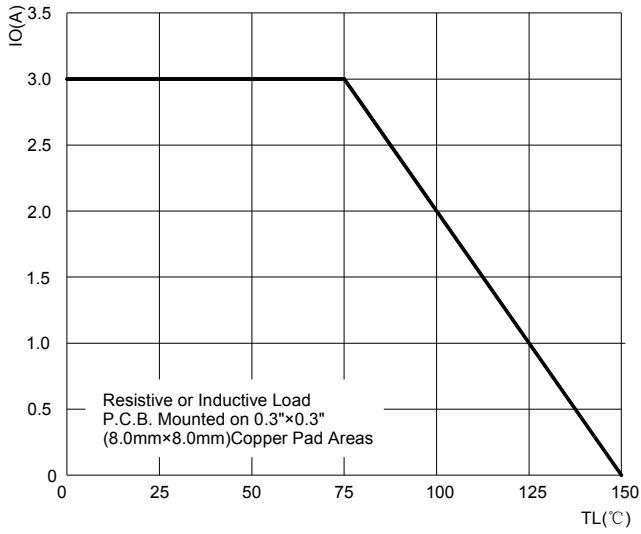


FIG.2: Forward Surge Current Capability

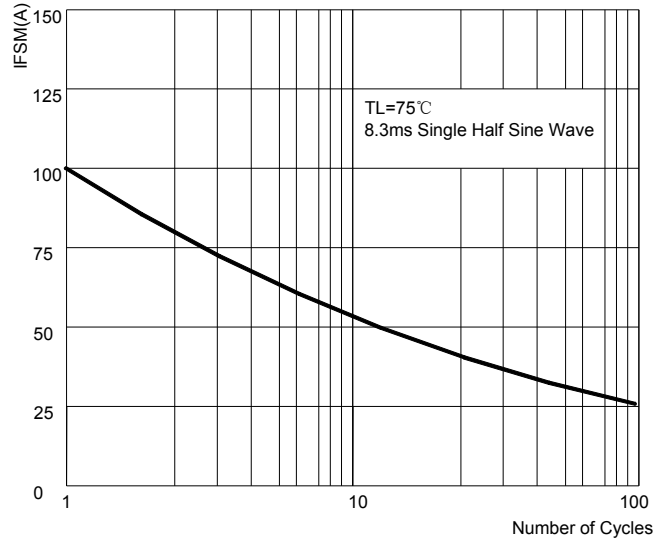


FIG.3: Forward Voltage

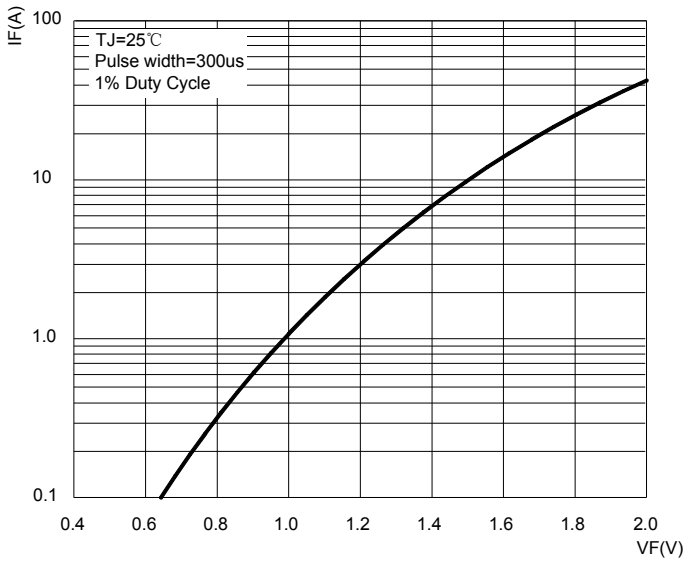


FIG.4: Typical Reverse Characteristics

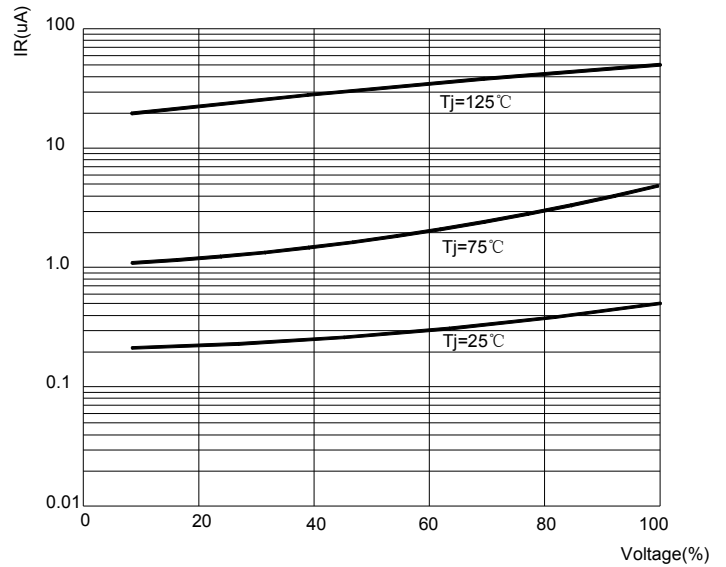
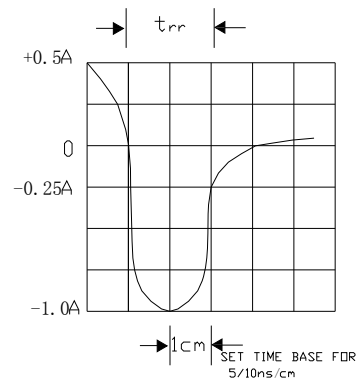
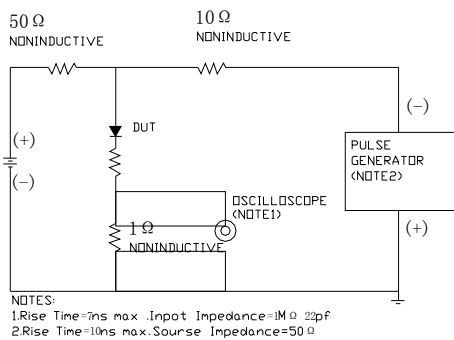


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

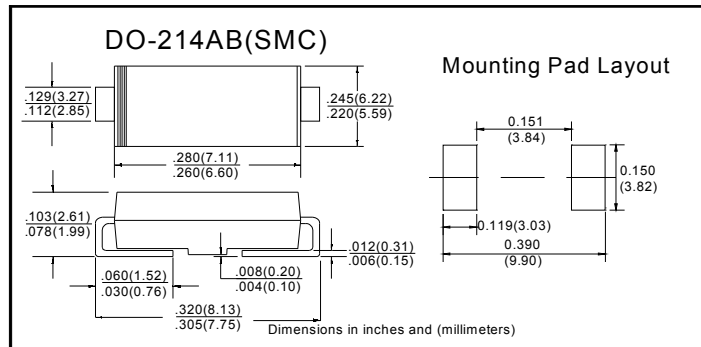


# GR3A THRU GR3M

## Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GR3A THRU GR3M	SMC	3000	6000	42000	13"reel

## Outline Dimensions



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Rectifiers](#) category:*

*Click to view products by [Ruilongyuan](#) manufacturer:*

Other Similar products are found below :

[70HFR40](#) [FR105 R0](#) [RL252-TP](#) [1N5397](#) [JANTX1N5634A](#) [1N4002G](#) [1N4005-TR](#) [JANS1N6640US](#) [481235F](#) [RRE02VS6SGTR](#) [067907F](#)  
[MS306](#) [US2JFL-TP](#) [A1N5404G-G](#) [CRS12\(T5L,TEMQ\)](#) [ACGRB207-HF](#) [CLH07\(TE16L,Q\)](#) [CLH03\(TE16L,Q\)](#) [ACGRC307-HF](#)  
[ACEFC304-HF](#) [DZ-1380](#) [NTE6356](#) [NTE6359](#) [JAN1N5555](#) [85HFR60](#) [40HFR60](#) [70HF120](#) [85HFR80](#) [D126A45C](#) [SCF7500](#) [SCHJ22.5K](#)  
[SM100](#) [SCPA2](#) [SDHD5K](#) [ACGRA4001-HF](#) [D1821SH45T PR](#) [D1251S45T](#) [NTE6358](#) [NTE5850](#) [NTE5819](#) [NTE5837](#) [NTE5892](#) [NTE5900](#)  
[NTE5911](#) [NTE5915](#) [NTE5921](#) [NTE6104](#) [NTE6105](#) [NTE6154](#) [NTE6158](#)