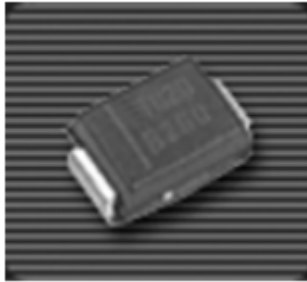


**Fast Recovery Surface Mount Rectifier**
**SMB(DO-214AA)**

**Features**

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020  
LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874


**Primary characteristics**

$I_{F(AV)}$	3A
$V_{RRM}$	50V to 1000V
$I_{FSM}$	100A
$I_{RM}$	5 $\mu$ A
$V_{FM}$ at $I_F=3A$	1.3V
$T_J$ max.	150 °C

**Applications**

Ideal for ac-to-dc bridge full wave rectification such as SMPS, home appliances, office equipment, industrial automation applications

**Mechanical data**

- SMB(DO-214AA)
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque: 10cm $\cdot$ kg(8.8 inches $\cdot$ lbs)max.
- Recommended Torque: 5.7 cm $\cdot$ kg(5 inches $\cdot$ lbs)

**Maximum rating (Ta=25°C unless otherwise noted)**

Parameter	Sym	SMB(DO-214AA)							Unit
		GR 3AB	GR 3BB	GR 3DB	GR 3GB	GR 3JB	GR 3KB	GR 3MB	
Max. repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Max. RMS reverse voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Max. DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Max. average forward current	$I_{F(AV)}$	3							A
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	$I_{FSM}$	100							A
Max. instantaneous forward voltage drop per diode	$V_{FM}$	1.3 (3A)							V
Max. instantaneous reverse current at rated DC blocking voltage	$I_{RM}$	5							$\mu$ A
		250							
Operating junction temperature	$T_J$	-55 ~ +150							°C
Storage temperature	$T_{STG}$	-55 ~ +150							°C
Maximum reverse recovery time (Note 1)	$t_{rr}$	150			250	500		nS	
Typical thermal resistance (Note 2)	$R_{J-A}$	50							°C/W
	$R_{J-L}$	10							

**Notes:** 1 Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25$

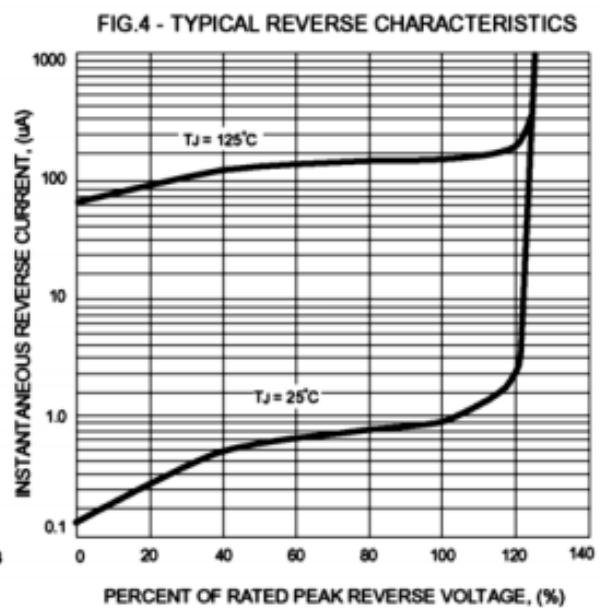
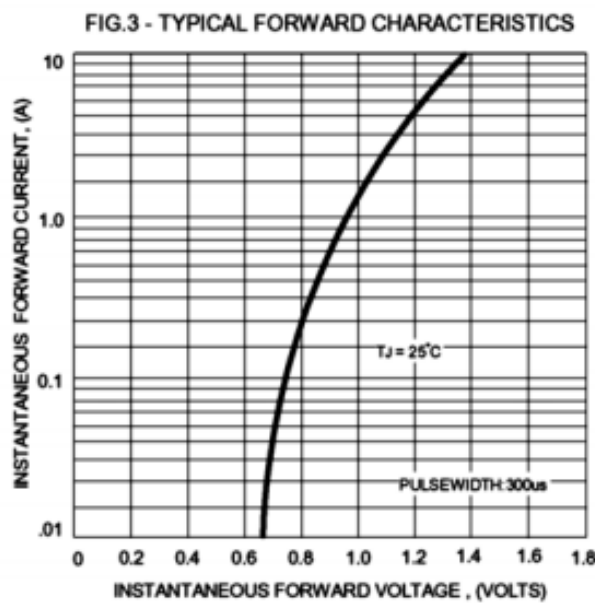
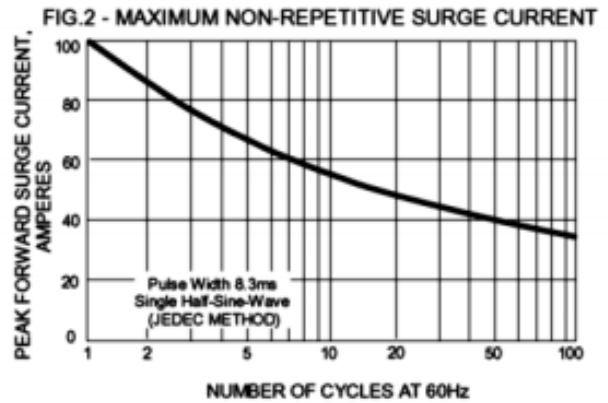
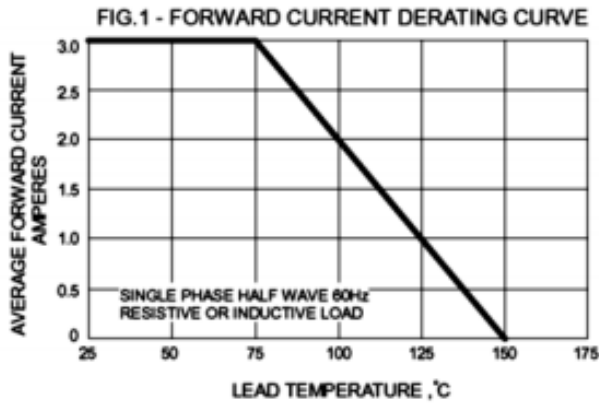
2 Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.3" x 0.3" ( 8.0 x 8.0 mm ) Copper Pad Areas



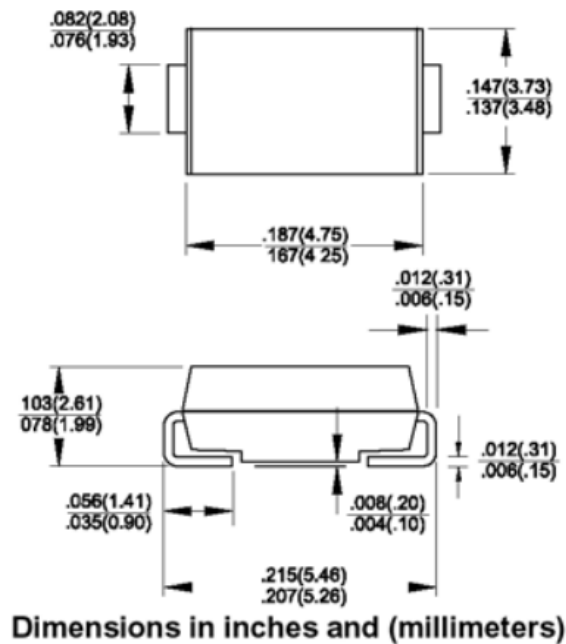
Ordering information (Example)

PREFERRED	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
GR3MB				

Typical characteristics



**Package outline dimensions**



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