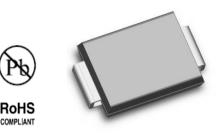


Surface Mount Glass Passivated Superfast Rectifier Reverse Voltage 400V to 600V Forward Current 1.0A

### **Features**

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as a free wheeling diode
- Ultrafast recovery time for high efficiency
- · For surface mount applications
- Glass passivated junction
- High temperature soldering guaranteed:250°C/10Seconds on terminals
- AEC-Q101 Qualified

### **Typical Applications**



DO-214AA (SMB)

- · Case: JEDEC DO-214AA (SMB) molded plastic body over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

MAXIMUM RATINGS (TA = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL	AMURS140	AMURS160	UNIT		
Maximum repetitive peak reverse voltage	VRRM	400	600	V		
Working peak reverse voltage	VRWM	400	600	V		
Maximum DC blocking voltage	VDC	400	600	V		
Maximum average forward $T_L=150^{\circ}C$ rectified current at TL(See Fig.1) $T_L=125^{\circ}C$	IF(AV)	1.0 2.0		А		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	35 A				
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 175 °C				

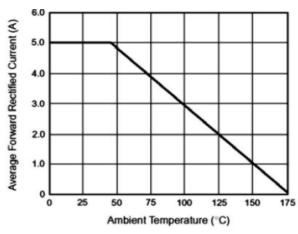
ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)							
PARAMETER	TEST CONDITIONS	SYMBOL	AMURS140	AMURS160	UNIT		
Maximum instantaneous forward voltage	at IF=1.0A ,Tj=25°C at IF=1.0A ,Tj=150°C	V <sub>F</sub>	1.25 1.05		Volts		
Maximum DC reverse current at	TA=25℃		5.0		μA		
rated DC blocking voltage	TA=125℃	I <sub>R</sub>	150				
Typical reverse recovery time	IF=0.5A,IR=1.0A, Irr=0.25A	t <sub>rr</sub>	50		nS		
Typical reverse recovery time	IF=1.0A,di/dt=50A/uS, VR=30V,Irr=10%I <sub>RM</sub>	t <sub>rr</sub>	75		nS		
Typical reverse recovery time	IF=1.0A,di/dt=100A/uS, recovery to 1.0V	t <sub>rr</sub>	50		nS		
Typical thermal resistance <sup>1)</sup>	juntion to ambient	$R_{ extsf{ heta}JA}$	13 °C/		°C/W		

Note:1),The thermal resistance from junction to ambient,case or lead,mounted on P.C.B with 8.0×8.0mm copper pads



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# **Ratings and Characteristics Curves**



(TA =  $25^{\circ}$ C unless otherwise noted)

Figure 1.Forward Current Derating Curve

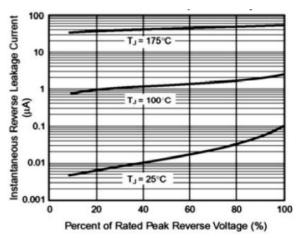


Figure 3. Typical Reverse Characteristics

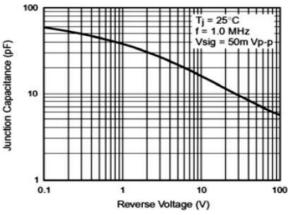
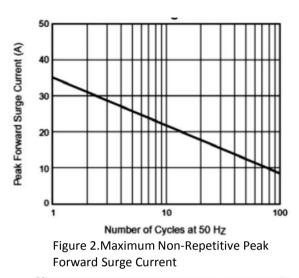


Figure 5. Typical Junction Capacitance



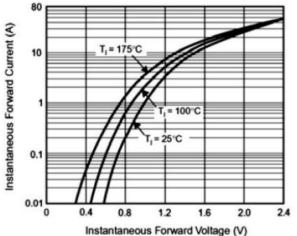


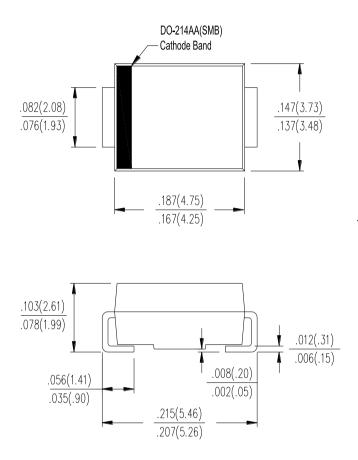
Figure 4. Typical Instantaneous Forward Characteristics



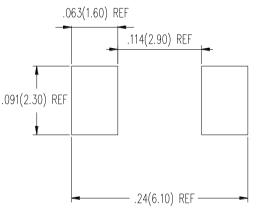
Surface Mount Glass Passivated Superfast Rectifier Reverse Voltage 400V to 600V Forward Current 1.0A

### **Package Outline Dimensions**

in inches (millimeters)



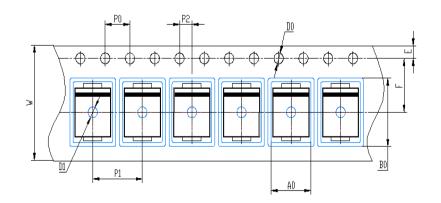
### Mounting Pad Layout



### **Packing Information**

3000 pcs/Reel, 18 Reels/Box; 12mm Tape, 13" Reel

#### **Tape & Reel Specification**



Symbols	SMB (mm)
W	$12 \pm 0.2$
E	$1.75 \pm 0.1$
F	5.5 $\pm$ 0.05
DO	$1.5 \pm 0.1$
D1	1.50 +0.1/-0
P0	$4.0 \pm 0.1$
P1	$8.0 \pm 0.1$
P2	$2.0 \pm 0.05$
AO	$3.95 \pm 0.1$
B0	5.74 $\pm$ 0.1



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