Pb Free Plating Product

AR6A thru AR6M

6.0 Ampere Glass Passivated Avalanche Rectifier Diodes

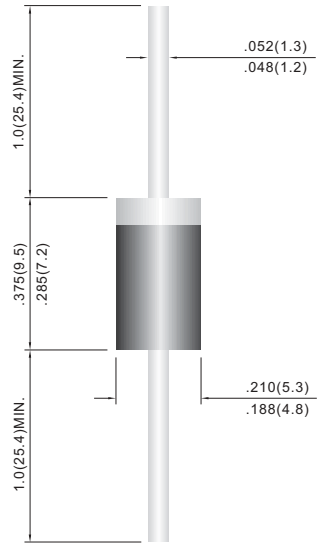
Features

- ✧ Glass passivated chip junction.
- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260 °C /10 seconds/.375",(9.5mm) lead lengths at 5 lbs.,(2.3kg) tension
- ✧ Weight: 1.9 gram approximately

DO-201AD Unit: inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	SYMBOL	AR6A	AR6B	AR6D	AR6F	AR6J	AR6K	AR6M	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	600	800	1000	V
Maximum Average Forward Rectified Current T_A=75°C	$I_{(AV)}$	6.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							A
Maximum Instantaneous Forward Voltage @ 6.0 A	V_F	1.1							V
Maximum DC Reverse Current @T_J=25°C At Rated DC Blocking Voltage @T_J=125°C	I_R	1.0 10							uA uA
Typical junction Capacitance (Note 1)	C_J	50							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20							°C/W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-65 to +150							°C

NOTES : (1) Thermal Resistance junction to ambient.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

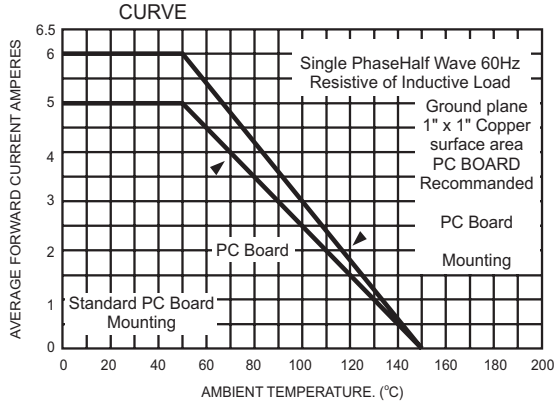
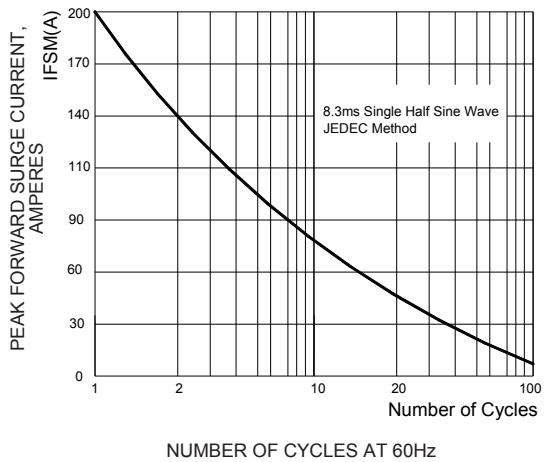


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60Hz

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

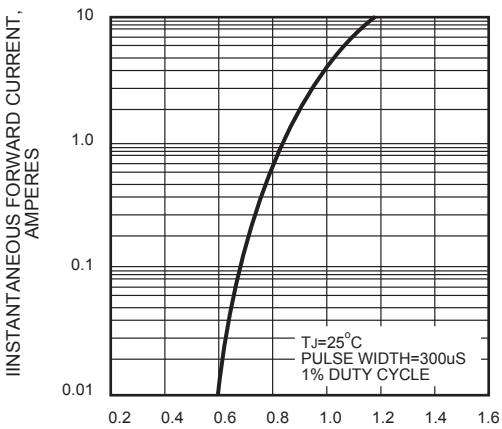


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

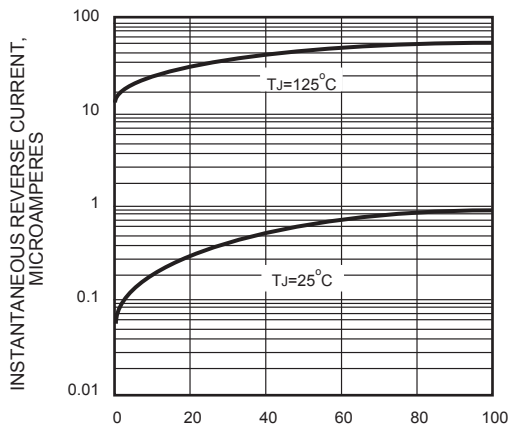


FIG.5 - TYPICAL JUNCTION CAPACITANCE