



# AVALANCHE AUTOMOTIVE DIODE

**AAR50Z/AARS50Z**

**AVALANCHE VOLTAGE 24 to 32 Volts**

**CURRENT 50 Amperes**

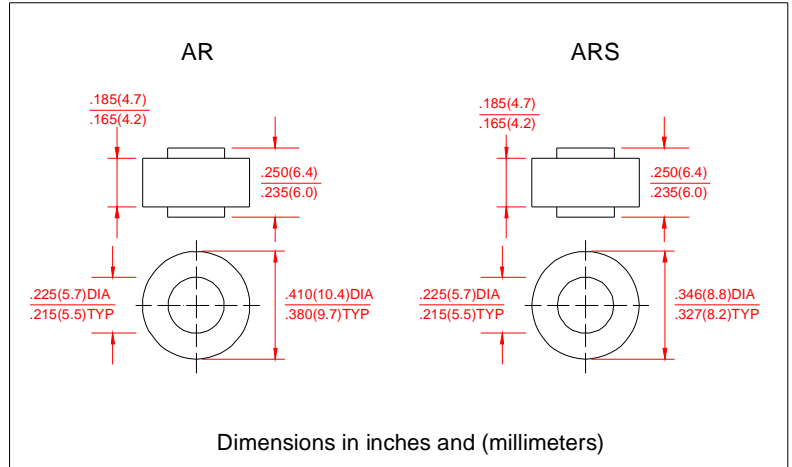
## Technical Specifecation:

### Features:

- High power capability
- Economical
- Avalanche Voltage: 24V to 32V

## MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94-0 rate flame ratardant
- Polarity: Indicated by Cathode Band
- Technology vacuum soldered
- Lead: Plated slug, solderable per MIL-STD-202E Method 208C
- Weight: 0.0635ounce, 1.8Grams (Approximately)



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Electrical Characteristics @ 25°C	SYMBOLS	MIN	NOMINAL	MAX	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$		20		Volts
Working Peak Reverse Voltage	$V_{RRM}$		20		
DC Blocking Voltage	$V_{DC}$		20		
Average Rectified Forward Current ( $T_c=125^\circ\text{C}$ )	$I_o$		50		Amps
Repetitive Peak Reverse Surge Current $T_c=10\text{msec}$ Dury Cycle < 1%	$I_{RSM}$		50		Amps
Breakdown Voltage ( $V_{br}@I_r=100\text{mA}$ , $T_c=25^\circ\text{C}$ )	$V_{br1}$	24	25-27	32	Volts
$I_r=90\text{Amps}$ , $T_c=150^\circ\text{C}$ , $PW=80\text{uSec}$	$V_{br2}$			40	Volts
Forward Voltage Drop @ $I_f=100\text{Amps}$ < 300uSec	$V_F$		1.0	1.05	Volts
Peak Forward Surge Current	$I_{FSM}$		600		Amps
Reverse Leakage ( $V_R=17\text{Vdc}$ ) $T_A=25^\circ\text{C}$	$I_R$		1.0	2.0	uAmps
Operating and Storage Junction Temperature Range	$T_J, T_{STG}$		-65 to +175		°C

**Notes:** 1. Enough heatsink must be considered in application.

