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AR50M/ARS50M

### Features

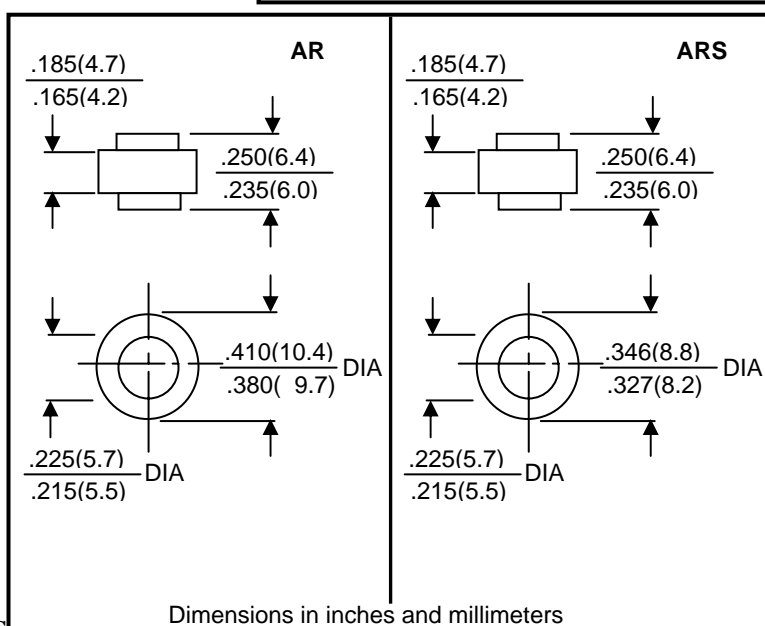
- High power capability
- Economical
- Avalanche voltage: 37 to 41 volts

### AVALANCHE AUTOMOTIVE DIODE

**AVALANCHE VOLTAGE  
37 TO 41 VOLTS  
CURRENT 50AMPS**

### Mechanical Data

- Case: transfer molded plastic
- Epoxy: UL94-0 rate flame retardant
- Technology vacuum soldered
- Polarity: colour ring denotes cathode
- Lead: Plated slug,  
Solderable per MIL-STD-202E method 208C
- Weight: AR 1.80 grams, ARS 1.60 grams



### 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%

Parameters	Symbols	Min.	Nominal	Max.	Units
Peak repetitive reverse voltage	$V_{RRM}$	28			Volts
Working peak reverse voltage	$V_{RWM}$	28			
DC blocking voltage	$V_{DC}$	28			
Average rectified forward current at $T_c=125^\circ\text{C}$	$I_o$	50			Amps
Repetitive peak reverse surge current $T_c=10\text{msec}$ duty cycle <1%	$I_{RSM}$	50			Amps
Breakdown voltage ( $V_{BR}$ @ $I_R=100\text{mA}$ , $T_c=25^\circ\text{C}$ )	$V_{BR1}$	37	39	41	Volts
	$V_{BR2}$			54	
Forward voltage drop ( $V_{FWB}$ ) @ $I_F=100\text{Amps}$ < 300sec	$V_F$	0.97	1.00	1.05	Volts
Peak forward surge current	$I_{FSM}$	600			Amps
Reverse leakage ( $V_R=17V_{DC}$ ) $T_c=25^\circ\text{C}$	$I_R$	0.2	1.0	2.0	$\mu\text{A}$
Operating and storage junction temperature range	$T_J, T_{STG}$	-65 to +175			$^\circ\text{C}$

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

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