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AR2501/ARS2501 THRU AR2512/ARS2512

HIGH VOLTAGE BUTTON DIODES FOR AUTOMOTIVE

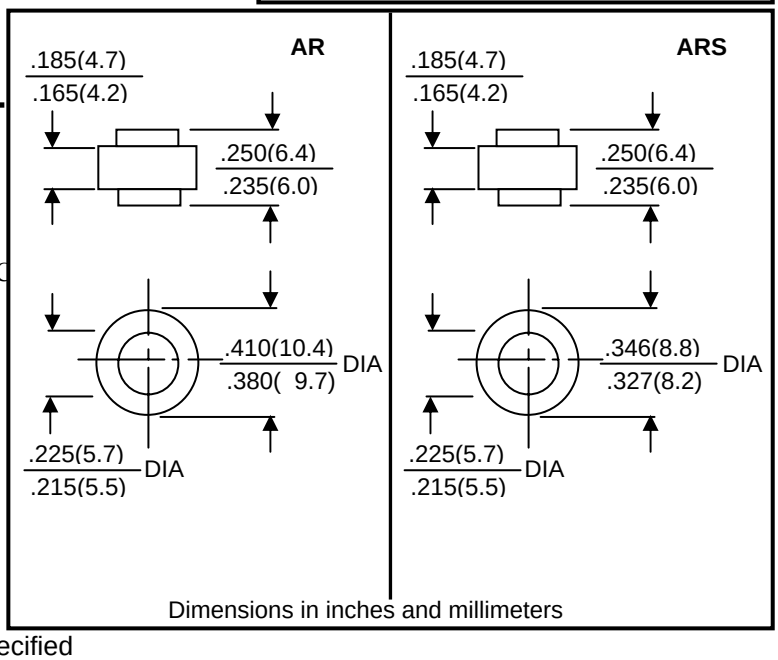
VOLTAGE RANGE
100 TO 1200 VOLTS
CURRENT 25AMPS

Features

- Low leakage
- Low forward voltage drop
- High current capability
- High forward surge current capability

Mechanical Data

- Case: transfer molded plastic
- Technology: vcauum soldered
- Polarity: color ring denotes cathode
- Lead: Plated lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weigth: AR 1.80 grams, ARS 1.60 grams



Dimensions in inches and millimeters

Maximum Ratings and Electrical Charactristics

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	AR2501 ARS2501	AR2502 ARS2502	AR2504 ARS2504	AR2506 ARS2506	AR2508 ARS2508	AR2510 ARS2510	AR2512 ARS2512	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	1200	Volts
Maximum RM S voltage	V_{RMS}	70	140	280	420	560	700	840	Volts
Maximum DC blocking voltage	V_{DC}	100	200	400	600	800	1000	1200	Volts
Maximum Average rectified forward current at T_C=110°C	I_o	25							Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JE DEC Method)	I_{FSM}	300							Amps
Rating for fusing(t<8.3ms)	I^2t	374							A^2S
Maximum instantaneous forward voltage drop at 35A	V_F	1.0							Volts
Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=150°C	I_R	5.0 500							uA
Typical thermal resistance	$R_{\theta JC}$	1.0							°C/W
Operating and storage temperature	T_J,T_{STG}	-65 to +175							°C

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

AR2501 THRU AR2512
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Ratings and Characteristic Curves

FIG.1–TYPICAL FORWARD CURRENT DERATING CURVE

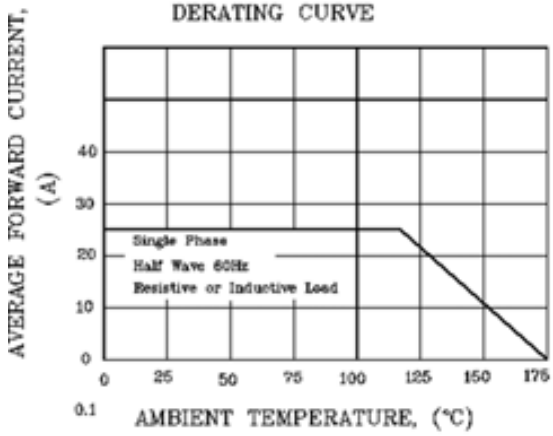


FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT

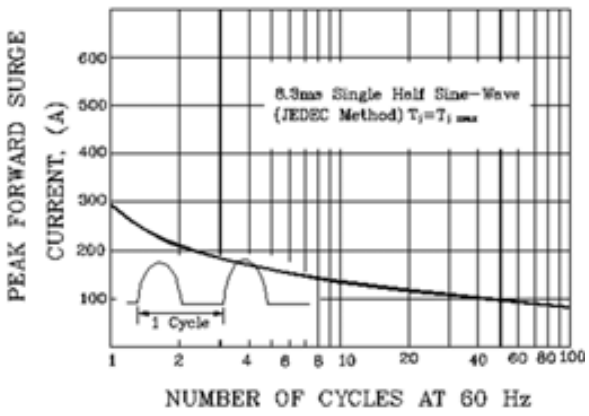


FIG.3–TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

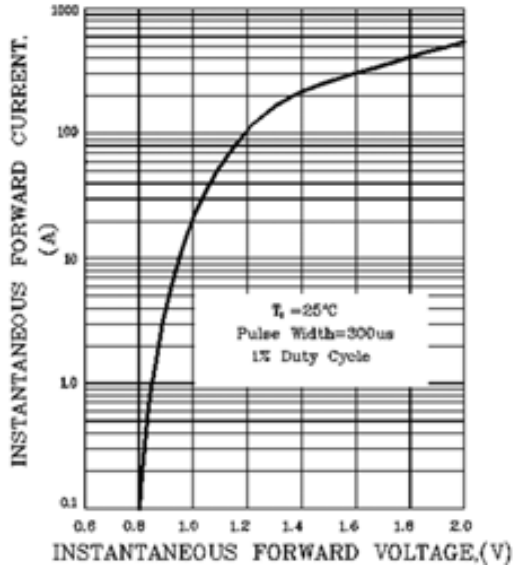


FIG.4– FORWARD POWER DISSIPATION

