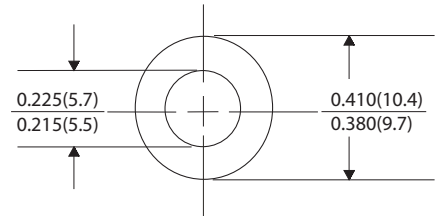
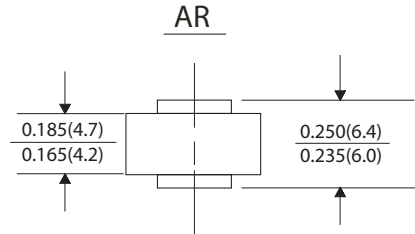




Features

- Plastic material used carries Underwriters Laboratory Classification 94V-0
- Low cost construction utilizing void-free molded plastic technique
- Low cost
- Diffused junctions
- Low leakage
- High surge capability
- High temperature soldering guaranteed : 250°C for 10 seconds



Dimensions in inches and (millimeters)

Mechanical Data

- Case : AR molded plastic
- Terminals : Plated terminals, solderable per MIL-STD-750, method 208
- Polarity : Color ring denotes cathode end
- Mounting Position : Any
- Weight : 0.07 ounce, 1.8 gram

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 by 20%)

	Symbols	AR 2505	AR 251	AR 252	AR 254	AR 256	AR 258	AR 2510	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_C=150^\circ\text{C}$	$I_{(AV)}$	25.0							Amps
Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method) $T_J=150^\circ\text{C}$	I_{FSM}	400							Amps
Maximum instantaneous forward voltage at 25.0A	V_F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage	$T_C=25^\circ\text{C}$	5.0							μA
	$T_C=100^\circ\text{C}$	250							
Typical reverse recovery time (Note 2)	t_{rr}	3.0							μs
Typical junction capacitance (Note 1) $T_J=25^\circ\text{C}$	C_J	300							pF
Typical thermal resistance (Note 3)	$R_{\theta JC}$	1.0							$^\circ\text{C}/\text{W}$
Operating and storage temperature range	T_J T_{STG}	-50 to +175							$^\circ\text{C}$

Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V dc.
- (2) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
- (3) Thermal resistance from junction to case, single side cooled.



FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

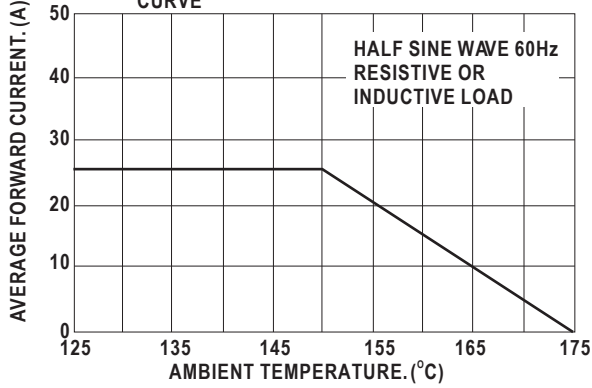


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

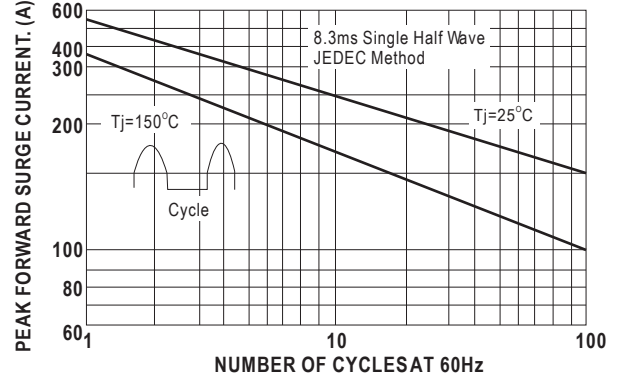


FIG.3- TYPICAL FORWARD CHARACTERISTICS

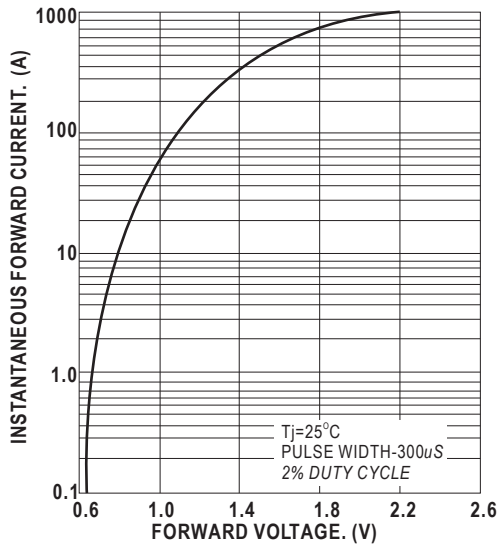


FIG.4- TYPICAL REVERSE CHARACTERISTICS

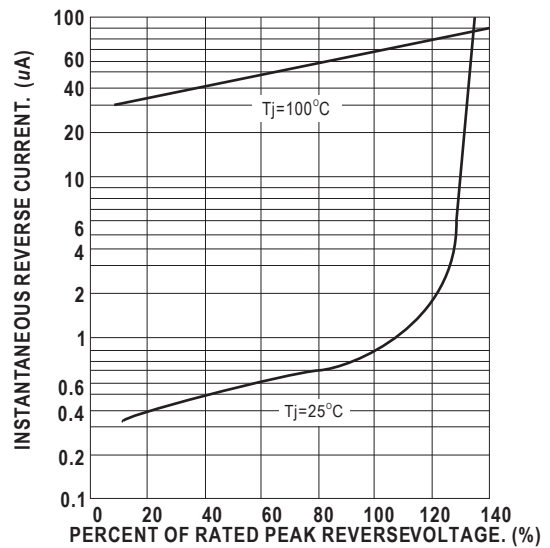


FIG.5- TYPICAL JUNCTION CAPACITANCE

