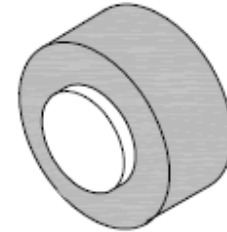


## 25A Automotive Rectifiers

### Features

- Low leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity
- RoHS Compliance



AR



### Mechanical Data

<b>Case:</b>	AR, molded plastic body
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Plated slug, solderable per MIL-STD-202, Method 208C
<b>Polarity:</b>	Color ring denotes cathode end
<b>Weight:</b>	0.064 ounces, 1.82 grams

### Maximum Ratings and Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	AR 2505	AR 251	AR 252	AR 254	AR 256	AR 258	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	140	280	420	560	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	25						A	$T_C=110^{\circ}\text{C}$
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	400						A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>V<sub>F</sub></b>	Forward Voltage	1.05						V	$I_F=25\text{A}$
<b>I<sub>R</sub></b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0						$\mu\text{A}$	$T_A=25^{\circ}\text{C}$
		250							$T_A=100^{\circ}\text{C}$

# 25A Automotive Rectifiers

## AR2505 - AR258

Symbol	Description	AR 2505	AR 251	AR 252	AR 254	AR 256	AR 258	Unit	Conditions
$R_{thJc}$	Typical Thermal Resistance	1.0						$^{\circ}C / W$	
$T_J$ , $T_{STG}$	Operating Junction and Storage Temperature Range	-65 to +175						$^{\circ}C$	
	Polarity and Voltage Demotion Color Band	Red	Yellow	Silver	Orange	Green	Blue		

- Note:** (1) Enough heatsink must be considered in application.  
 (2) Single phase, half wave, 60Hz, resistive or inductive load.  
 (3) For capacitive load derate current by 20%.

### Typical Characteristics Curves

Fig.1-Typical Forward Current Derating Curve

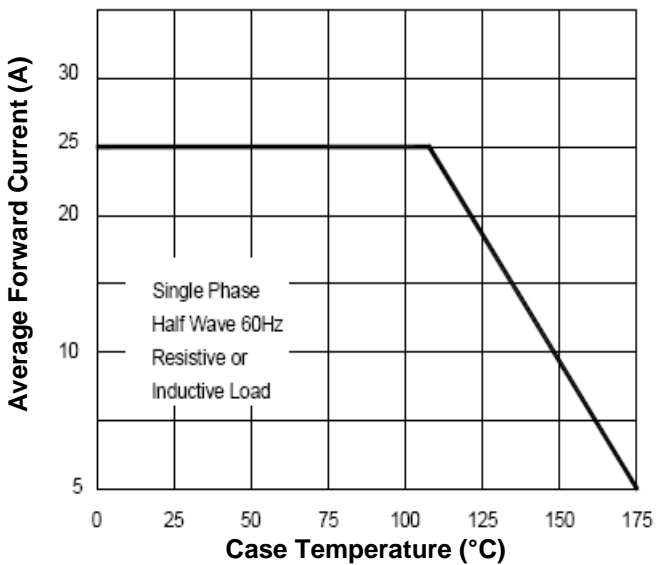
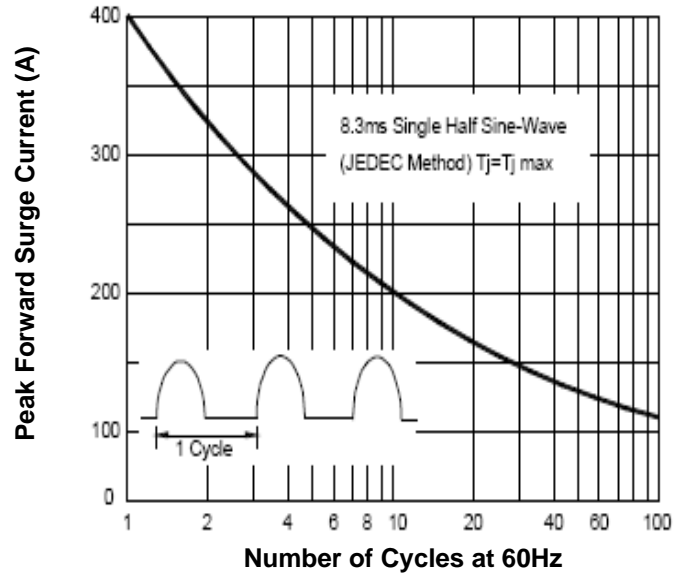


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



# 25A Automotive Rectifiers

## AR2505 - AR258

Fig.3- Typical Instantaneous Forward Characteristics

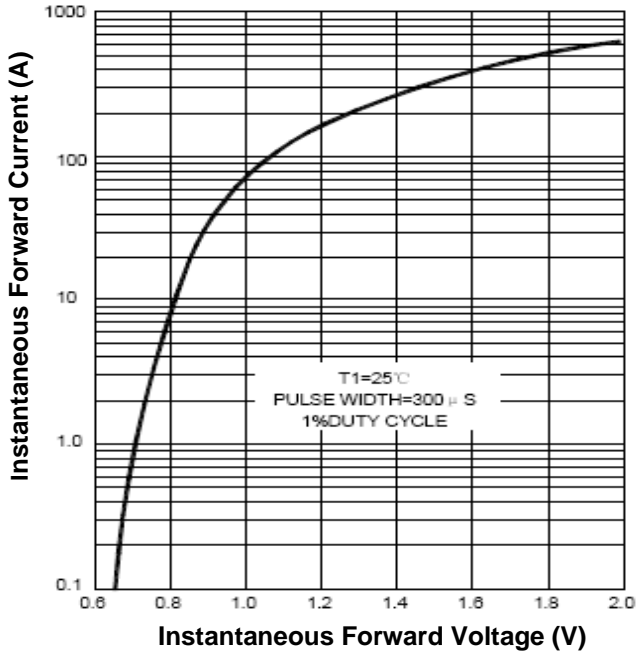
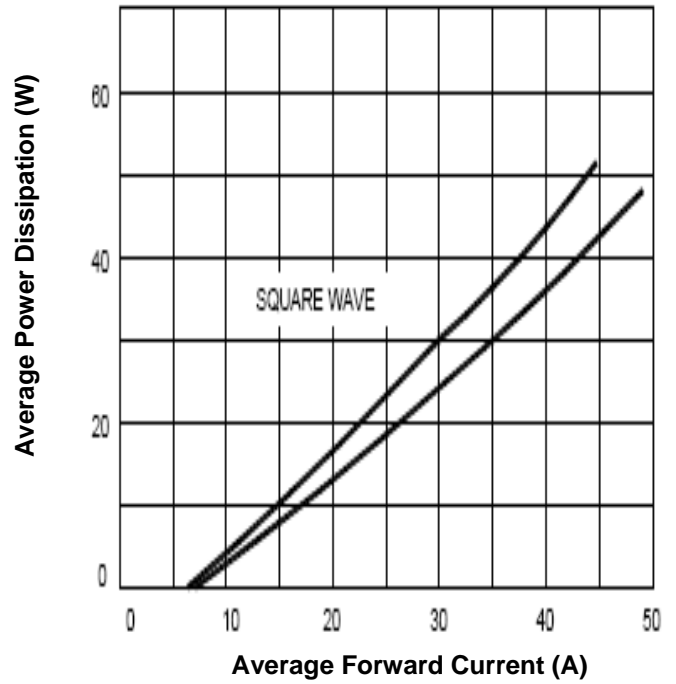
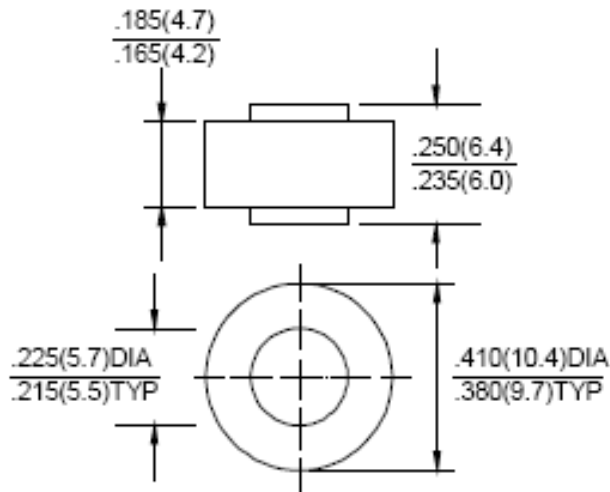


Fig.4-Forward Power Dissipation



### Dimensions in inch (mm)



AR

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