

25A Automotive Rectifiers

Features

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



ARS

Mechanical Data

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

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

Symbol	Description	ARS 2505	ARS 251	ARS 252	ARS 254	ARS 256	ARS 258	Unit	Conditions
VRRM	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	V	
VRMS	Maximum RMS Voltage	35	70	140	280	420	560	V	
VDC	Maximum DC Blocking Voltage	50	100	200	400	600	800	V	
IF(AV)	Maximum Average Forward Rectified Current	25						A	$T_C=110^\circ\text{C}$
IFSM	Peak Forward Surge Current	400						A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
VF	Forward Voltage	1.05						V	$I_F=25\text{A}$
IR	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0						μA	$T_A=25^\circ\text{C}$
		250							$T_A=100^\circ\text{C}$

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ARS2505 - ARS258

Symbol	Description	ARS 2505	ARS 251	ARS 252	ARS 254	ARS 256	ARS 258	Unit	Conditions
RthJc	Typical Thermal Resistance	1.0						°C / W	
Tj, Tstg	Operating Junction and Storage Temperature Range	-65 to +175						°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

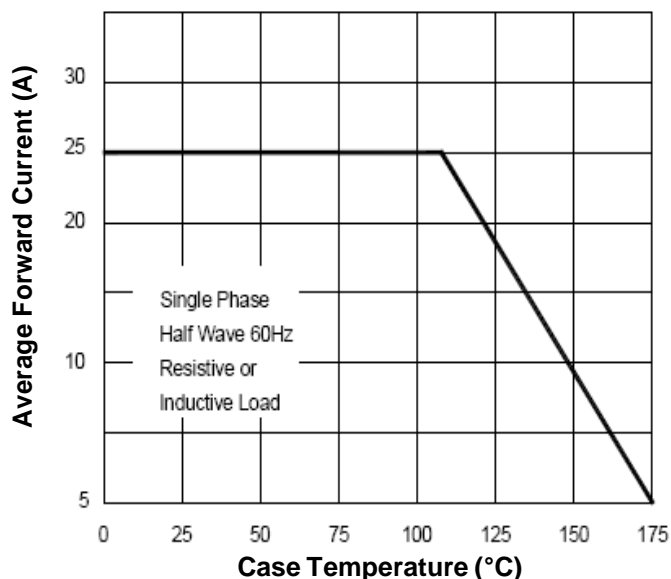


Fig.2-Max. Non-Repetitive Peak Forward Surge Current

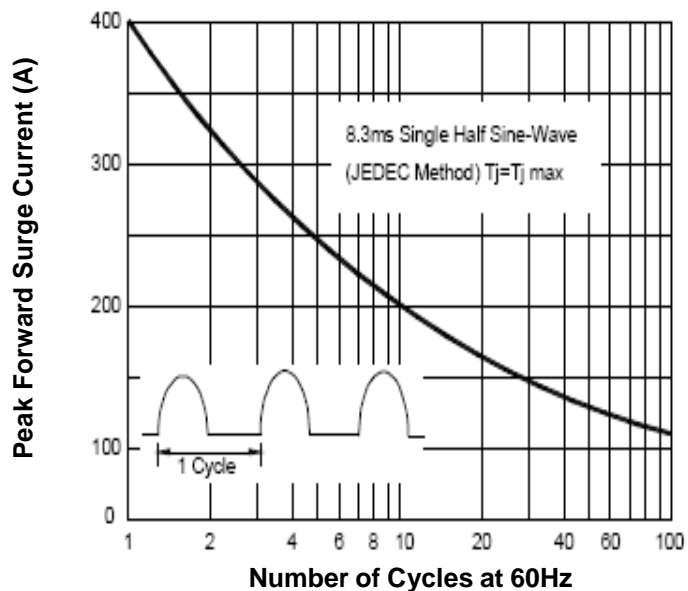


Fig.3- Typical Instantaneous Forward Characteristics

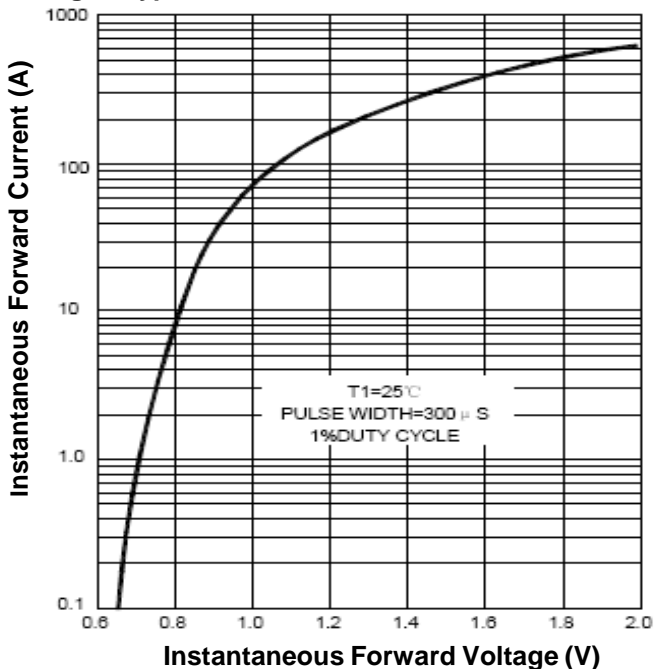
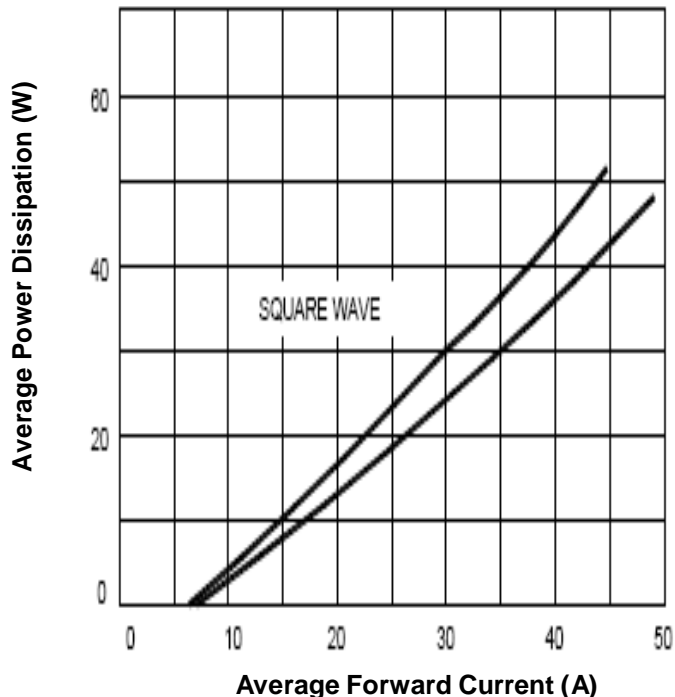
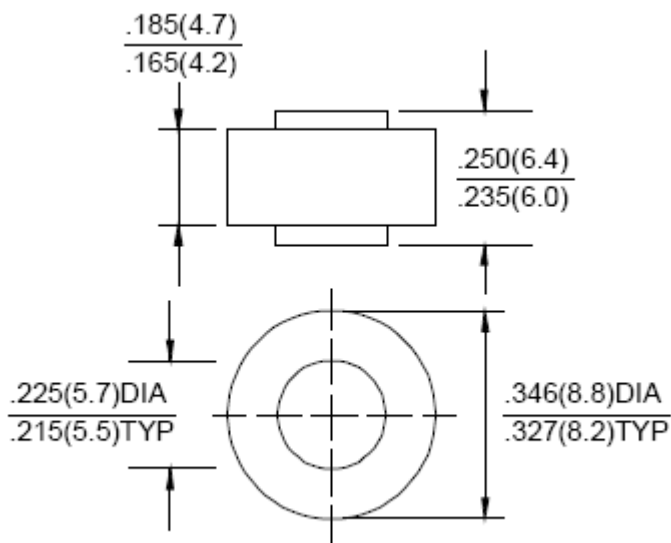


Fig.4-Forward Power Dissipation



Dimensions in inch (mm)



ARS

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