

25A Automotive Rectifiers

Features

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



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	Tc=110° 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	IF=25A
IR	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0						μA	TA=25° C
		250							TA=100° C

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ARS2505 - ARS258

Symbol	Description	ARS 2505	ARS 251	ARS 252	ARS 254	ARS 256	ARS 258	Unit	Conditions
R_{thJC}	Typical Thermal Resistance	1.0						$^{\circ}\text{C} / \text{W}$	
T_J , T_{STG}	Operating Junction and Storage Temperature Range	-65 to +175						$^{\circ}\text{C}$	
	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

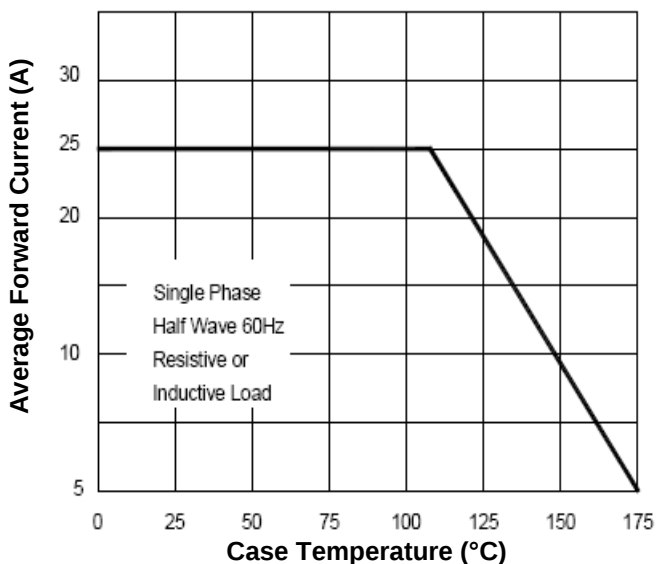
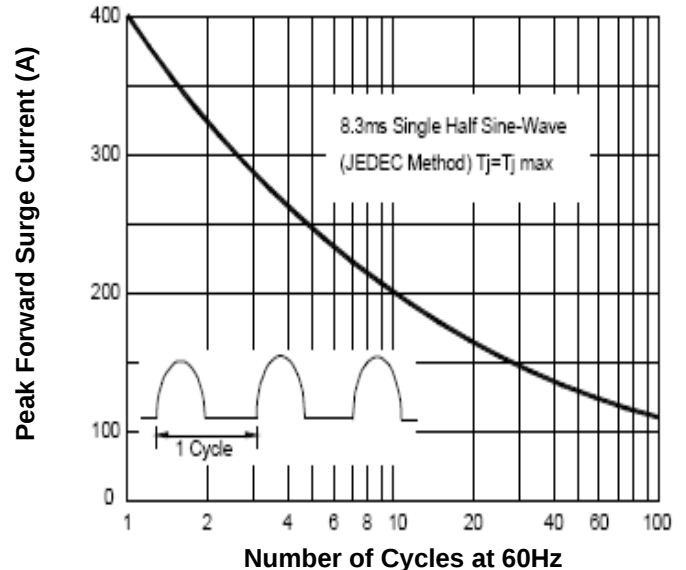


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



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Fig.3- Typical Instantaneous Forward Characteristics

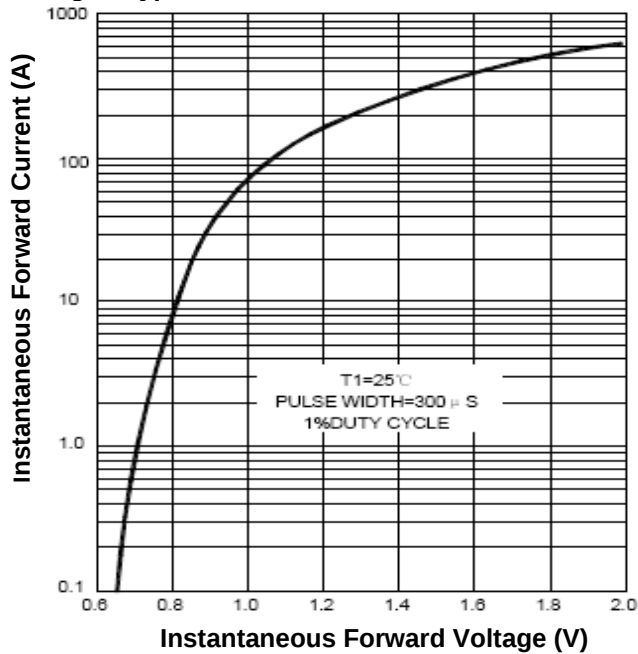
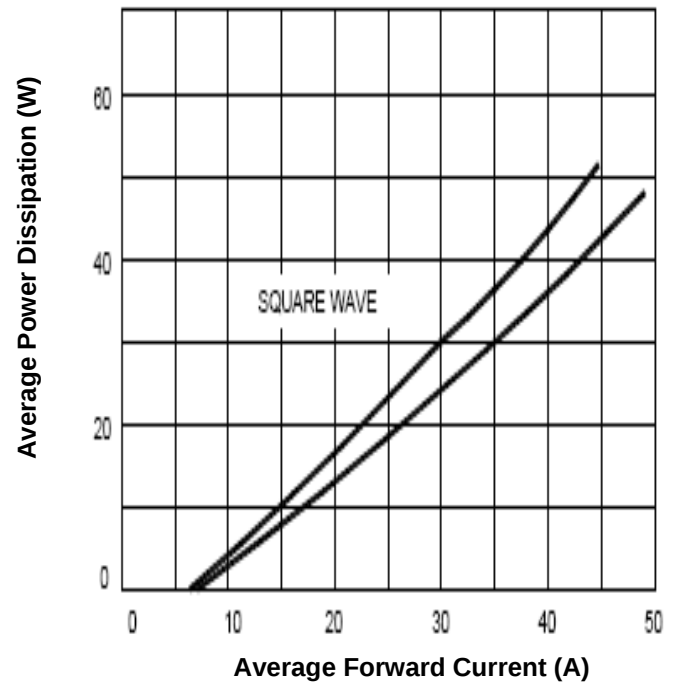
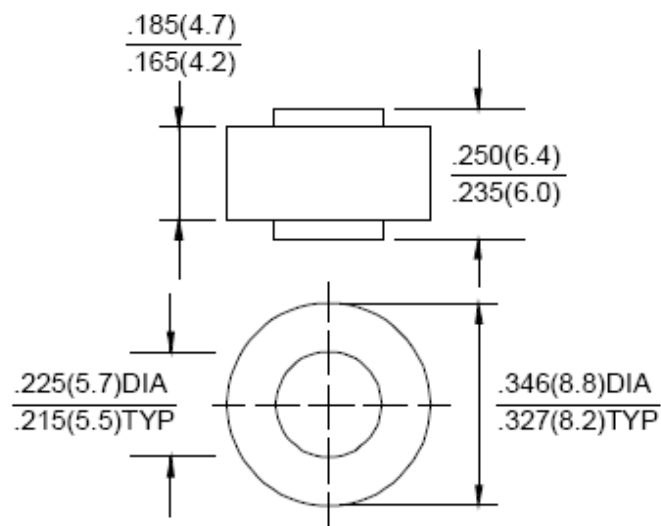


Fig.4-Forward Power Dissipation



Dimensions in inch (mm)



ARS

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How to contact us:

US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: taitron@taitroncomponents.com

Http://www.taitroncomponents.com

TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.

42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

TAITRON COMPONETS INCORPORATED E REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

TAITRON COMPONETS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931