



# FUKUCOM COMPANY LTD.

## 福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206



### AUTOMOTIVE RECTIFIER

ARS5005 thru ARS506

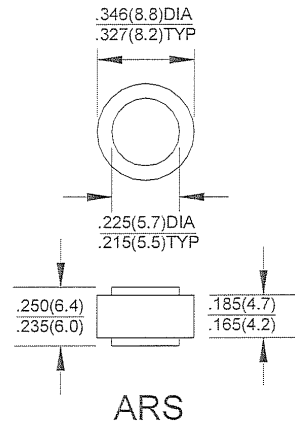
VOLTAGE RANGE 50 to 600 Volts  
CURRENT 50 Amperes

#### FEATURES

- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- High Forward Surge Current Capability

#### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy:UL94V-0 rate flame retardant
- Polarity: Color ring denotes cathode end
- Lead: Plated axial lead, solderable per MIL – STD-202E Method 208C
- Mounting Position: Any.
- Weight: 0.064 ounces, 1.82 grams



#### 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 current by 20%

	SYMBOLS	ARS5005	ARS501	ARS502	ARS503	ARS504	ARS506	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	350	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	Volts
Maximum Average Forward Rectified Current, At $T_C = 105^\circ\text{C}$	$I_{(AV)}$	50						Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on Rated load (JEDEC method)	$I_{FSM}$	600						Amps
Maximum Instantaneous Forward Voltage @ 80A	$V_F$	1.08					1.10	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	5.0					500	$\mu\text{A}$
Typical Thermal Resistance	$R_{\theta JC}$	0.8						$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	-65 to +175						$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +175						$^\circ\text{C}$

#### Notes:

1. Enough heatsink must be considered in application.



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CURRENT 50 Amperes

RATINGS AND CHARACTERISTIC CURVES ARS5005 thru ARS506

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

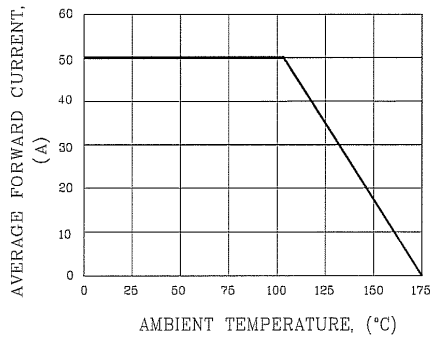


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

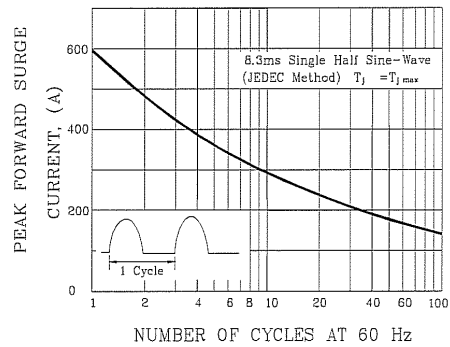


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

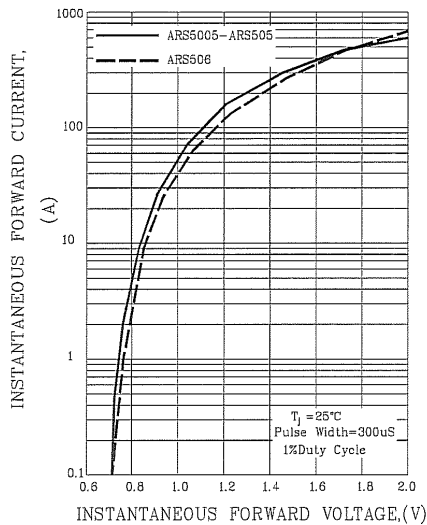


FIG.4-FORWARD POWER DISSIPATION

