AR/ARS50X SERIES

HIGH CURRENT PLASTIC SILICON RECTIFIER

产品规格确认书

AR/ARS50005 THRU AR/ARS5010

HIGH CURRENT PLASTIC SILICON RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

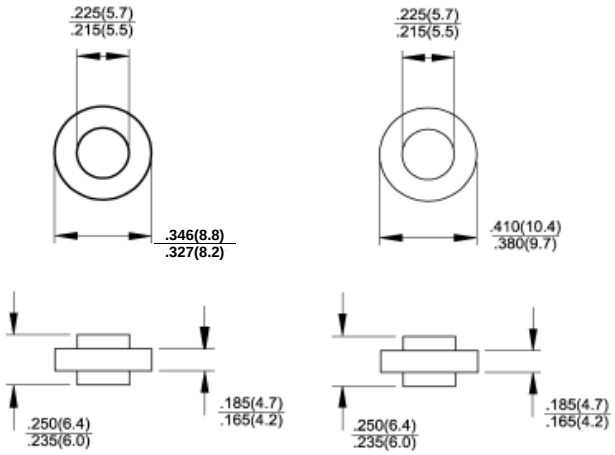
REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **50.0 AMPERE**

FEATURES

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

RAS **RA**



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, RA/RAS

Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color ring denotes cathode end

Mounting position: Any

Weight: 0.07ounce, 1.8gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60H_Z, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	*AR50005* *ARS50005*	*AR5001* *ARS5001*	*AR5002* *ARS5002*	*AR5004* *ARS5004*	*AR5006* *ARS5006*	*AR5008* *ARS5008*	*AR5010* *ARS5010*	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=135℃	$I_{(AV)}$	50							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	500							**Amp**
Maximum Forward Voltage at 50.0A DC and 25℃	V_F	1.1							**Volts**
Maximum Reverse Current at T_C=25℃	I_R	5.0							**uAmp**
at Rated DC Blocking Voltage T_C=100℃		250							
Typical Junction Capacitance (Note 1)	C_J	300							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1							**℃/W**
Maximum Reverse Recovery Time (Note 3)	T_{RR}	3							**uS**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +175							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{RR}=.25A.

3- Thermal Resistance from Junction to Case, Singe Side Cooled.

AR/ARS50005 THRU AR/ARS5010

HIGH CURRENT PLASTIC SILICON RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

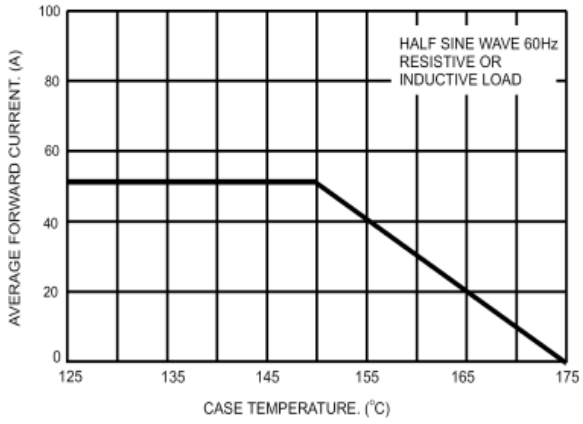


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

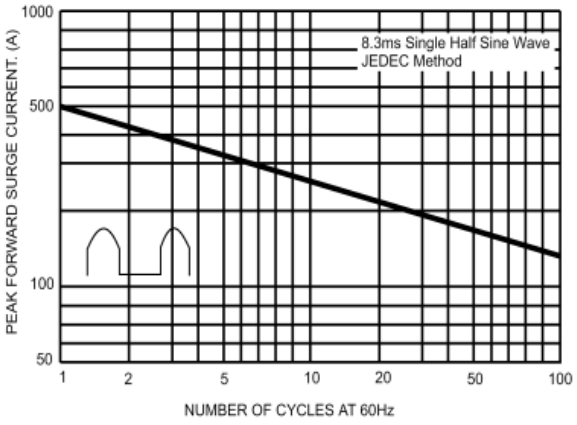


FIG.3- TYPICAL FORWARD CHARACTERISTICS

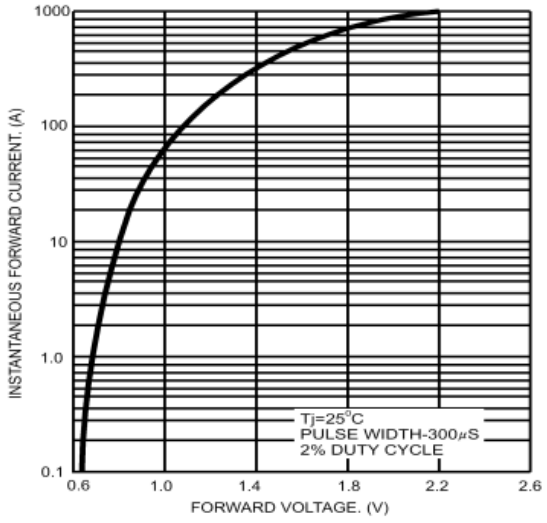


FIG.4- TYPICAL REVERSE CHARACTERISTICS

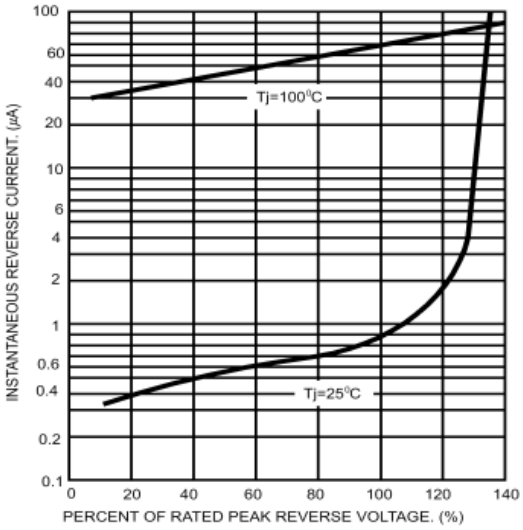


FIG.5- TYPICAL JUNCTION CAPACITANCE