AR50A thru AR50M

HIGH CURRENT
AUTOMOBILE RECTIFIER

REVERSE VOLTAGE - **50** to **1000**Volts
FORWARD CURRENT - **50** Amperes

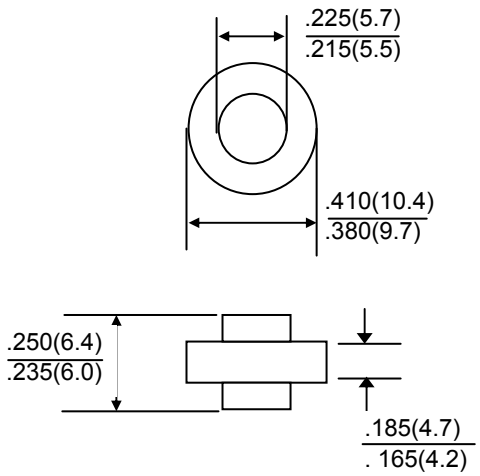
FEATURES

- Utilizing viod-free molded plastic technique
- Low power loss
- High Surge Capability
- High temperature soldering guaranteed: 265℃/10S

MECHANICAL DATA

- Terminals:Plated axial terminals solderable per MIL STD-202E,Method 208C
- Case: Molded with UL-94 Class V-O recognized flame retardant epoxy
- Polarity: Color ring denotes cathode

AR



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave ,60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	AR50A	AR50B	AR50D	AR50G	AR50J	AR50K	AR50M	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_A=55 ℃	$I_{(AV)}$	50							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	I_{FSM}	600							A
Maximum Instantaneous Forward Voltage (at Rated Forward Current)	V_F	1.1							V
Maximum DC Reverse Current @T_A=25℃ at Rated DC Bolcking Voltage @T_A=150℃	I_R	10 1000							uA
Typical Junction Capacitance Element (Note1)	C_J	300							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	1.0							℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃
Polarity and voltage denotation color ring		Red	Yellow	Silver	Orange	Green	Blue	Violet	

NOTES:1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance from junction of ambient.

3.The typical data above is for reference only(典型值仅供参考).

RATING AND CHARACTERISTIC CURVES
AR50A thru AR50M

FIG. 1 – FORWARD CURRENT DERATING CURVE

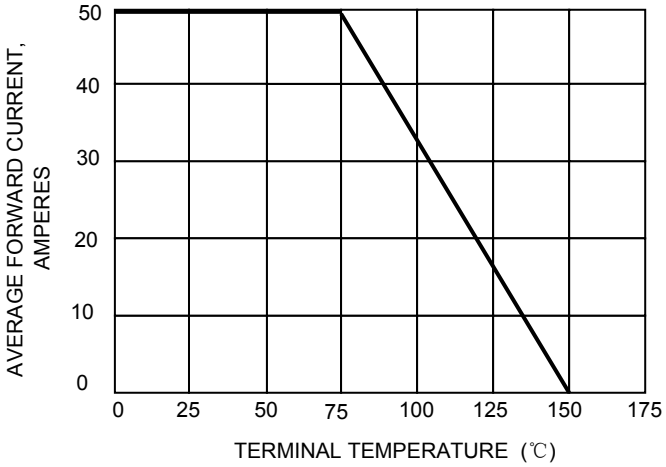


FIG.2- NON-REPETITIVE
PEAK FORWARD SURGE CURRENT

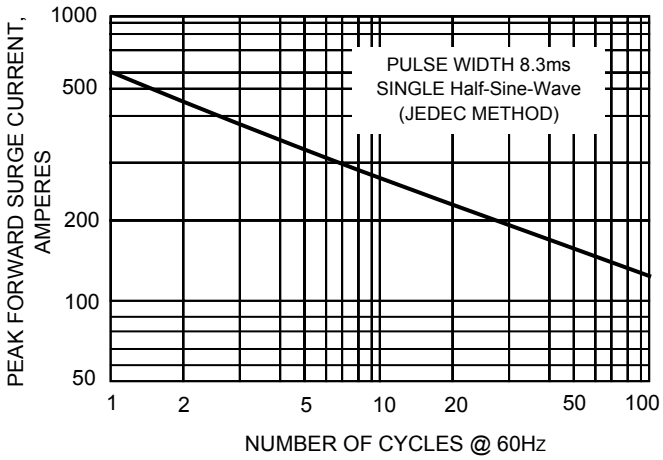


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

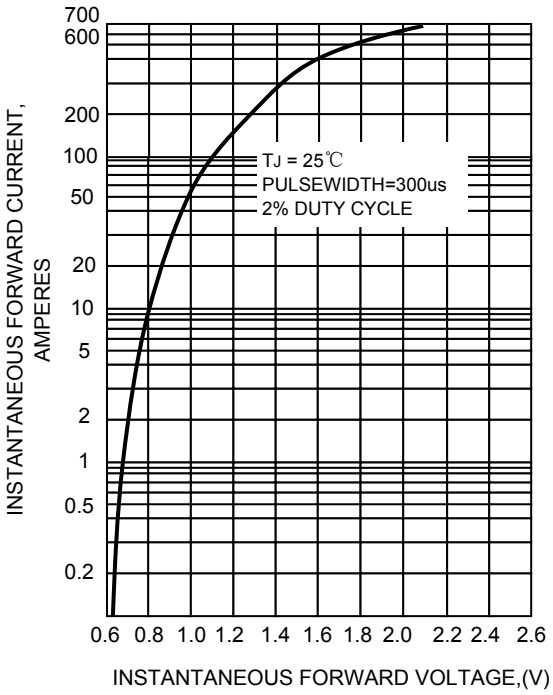


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

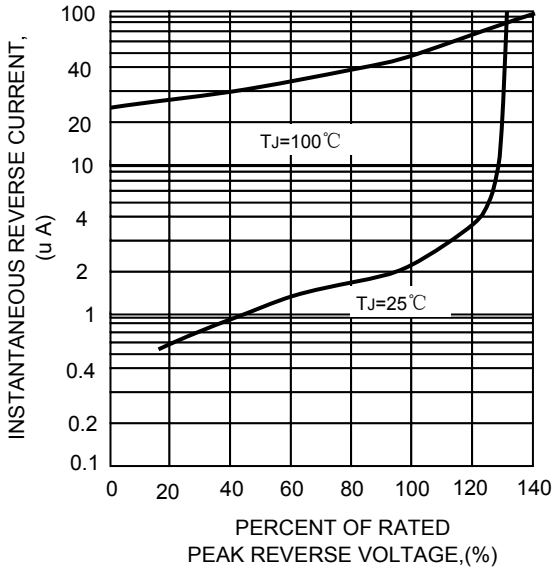
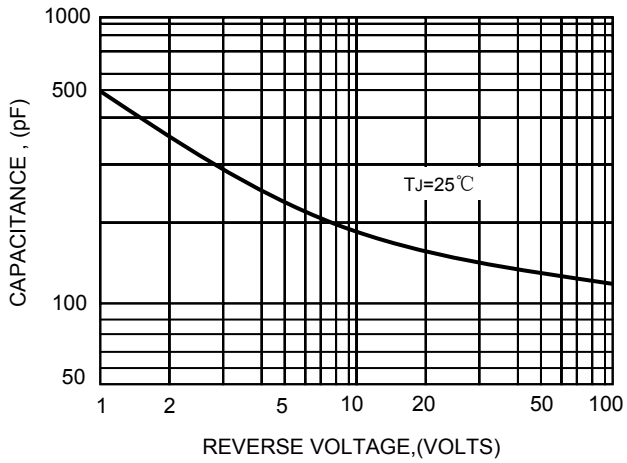


FIG.5-TYPICAL JUNCTION CAPACITANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

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