

## Transient Voltage Suppressor for Automobile Button

Breakdown Voltage - 24 to 40Volts

Forward Current - 50 Amperes

### Features

- High surge current capability
- Low loss
- Low forward voltage drop
- Low leakage current
- High surge forward current capability
- High temperature soldering guaranteed: 250 °C/10S

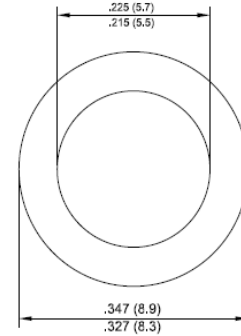
### Mechanical Data

- Case: JEDEC ARS molded plastic
- Polarity: Color band denotes cathode

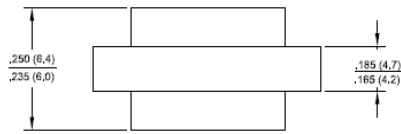
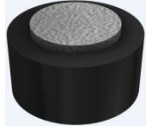
### Applications

- Generally applied in alternator, motorbike , automobile, etc.

ARS



RoHS COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	ARS5024	ARS5028	ARS5040	Unit		
Maximum Repetitive Peak Reverse Voltage	VRRM	16	20	28	V		
Working Peak Reverse Voltage	VRWM	16	20	28	V		
Maximum DC Blocking Voltage	VDC	16	20	28	V		
Breakdown voltage Min@ I <sub>BR</sub> =100mA/T <sub>A</sub> =25 °C	VBRL	20	24	38	V		
Breakdown voltage Max@ I <sub>BR</sub> =100mA/T <sub>A</sub> =25 °C	VBRH	26	32	42	V		
Maximum Average Forward Rectified Current @T <sub>L</sub> =125 °C	I(AV)	50			A		
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	500			A		
I <sup>2</sup> t Rating for Fusing (t<8.3mS)	I <sup>2</sup> t	1037.5			A <sup>2</sup> S		
Maximum Instantaneous Forward Voltage at Rated Forward Current	V <sub>F</sub>	1.0			V		
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25 °C	I <sub>R</sub>	0.2			uA		
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150			°C		
Storage Temperature Range	T <sub>STG</sub>	-55 to +150			°C		
Position of polarity ring denotes cathode, while color denotes voltage gradation.		Red	Yellow	Orange	Silver	Green	Blue

Note: The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

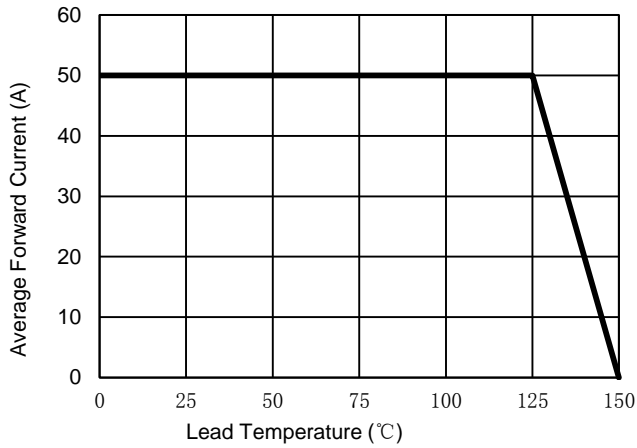


Fig. 2 - Maximum Non-Repetitive Surge Current

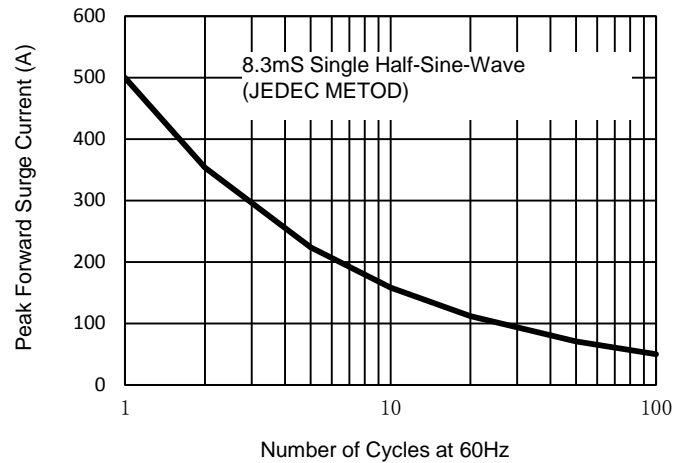


Fig. 3 - Pulse Waveform

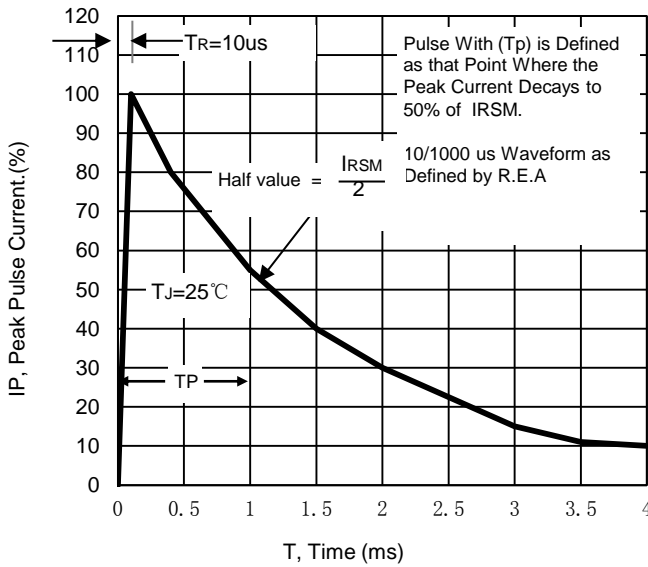


Fig. 4 - Typical Forward Characteristics

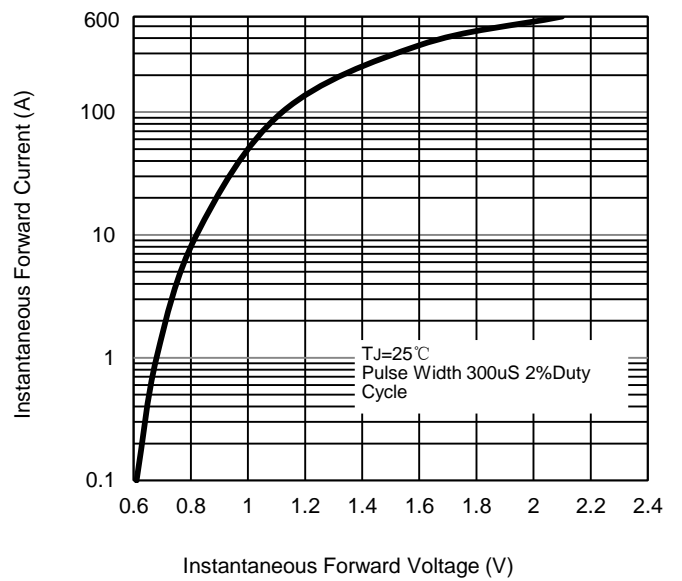
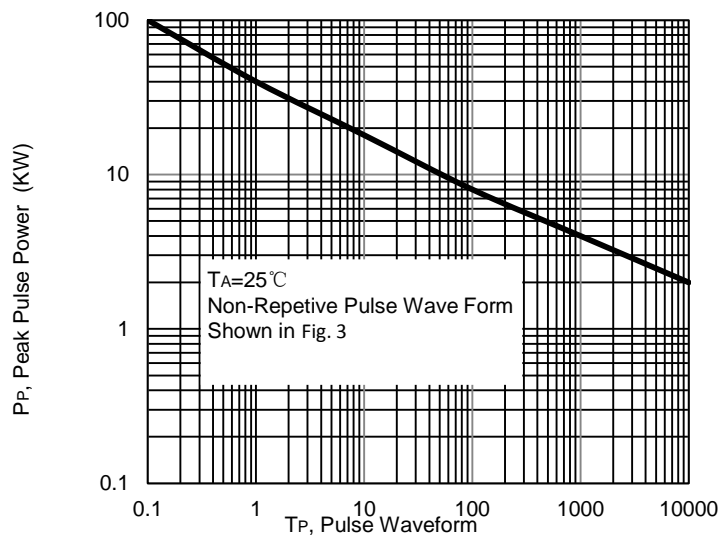


Fig. 5 - Pulse Rating Curve



The curve above is for reference only.



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