

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

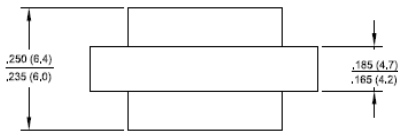
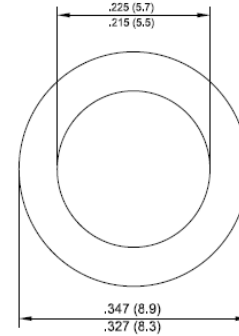
Mechanical Data

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

Applications

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

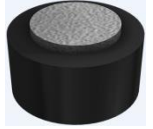
ARS



Package Outline Dimensions in Inches (Millimeters)



RoHS COMPLIANT



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	V _{RRM}	16	20	28	V		
Working Peak Reverse Voltage	V _{RWM}	16	20	28	V		
Maximum DC Blocking Voltage	V _{DC}	16	20	28	V		
Breakdown voltage Min@ I _{BR} =100mA/T _A =25 °C	V _{BRL}	20	24	38	V		
Breakdown voltage Max@ I _{BR} =100mA/T _A =25 °C	V _{BRH}	26	32	42	V		
Maximum Average Forward Rectified Current @T _L =125 °C	I _(AV)	50			A		
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	500			A		
I ² t Rating for Fusing (t<8.3mS)	I ² t	1037.5			A ² S		
Maximum Instantaneous Forward Voltage at Rated Forward Current	V _F	1.0			V		
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25 °C	I _R	0.2			uA		
Operating Junction Temperature Range	T _J	-55 to +150			°C		
Storage Temperature Range	T _{STG}	-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

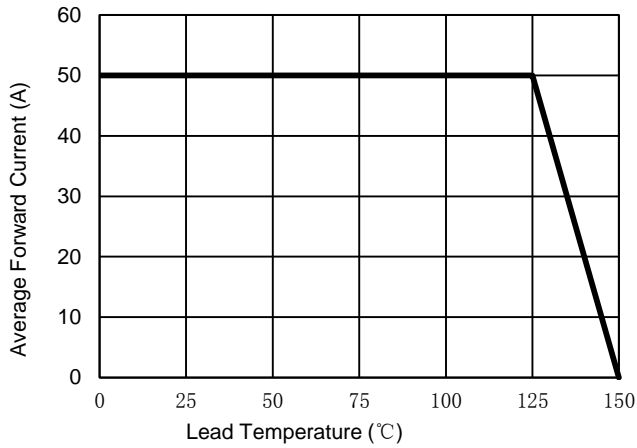


Fig. 2 - Maximum Non-Repetitive Surge Current

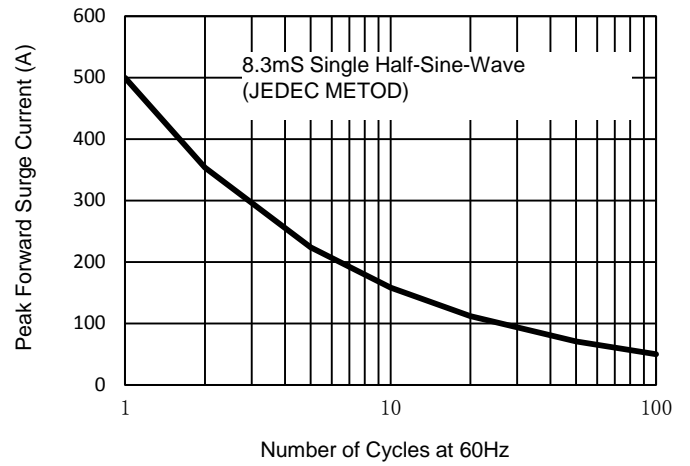


Fig. 3 - Pulse Waveform

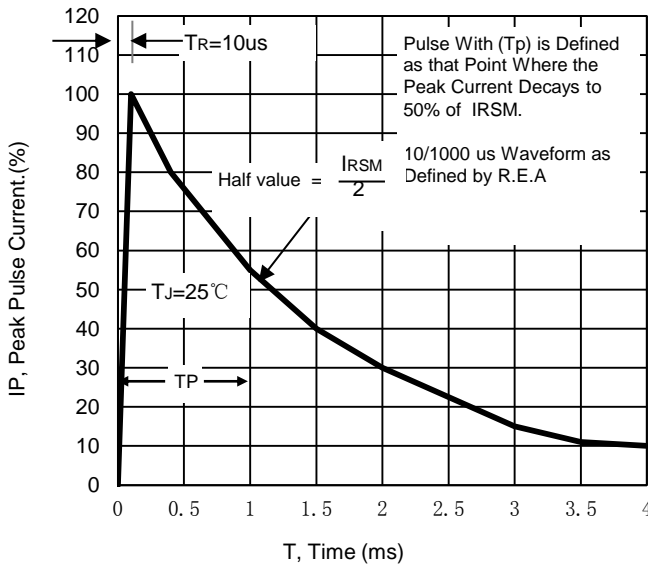


Fig. 4 - Typical Forward Characteristics

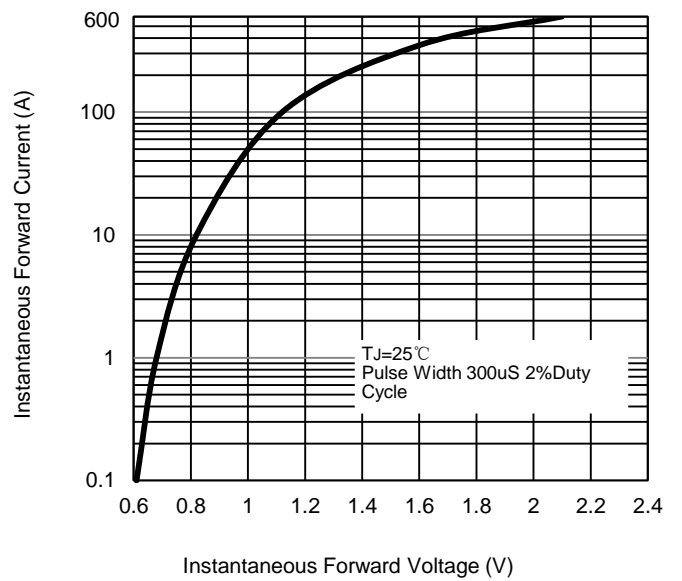
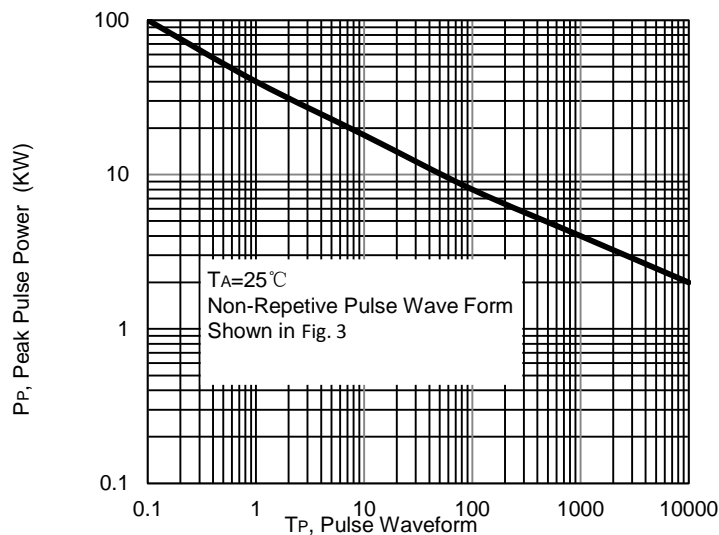


Fig. 5 - Pulse Rating Curve



The curve above is for reference only.

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