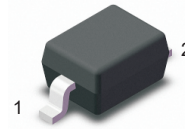


Features

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- Low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Compliance with RoHS 2011/65/EU, Pb Free & Halogen Free
Pb < 1000 ppm



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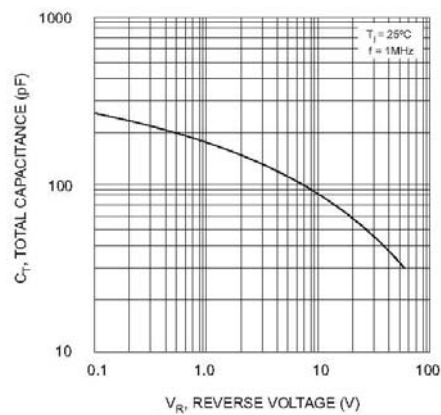
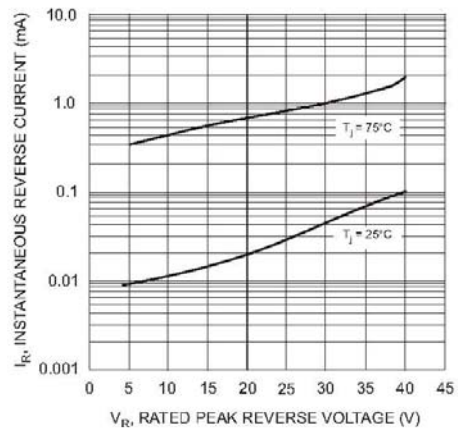
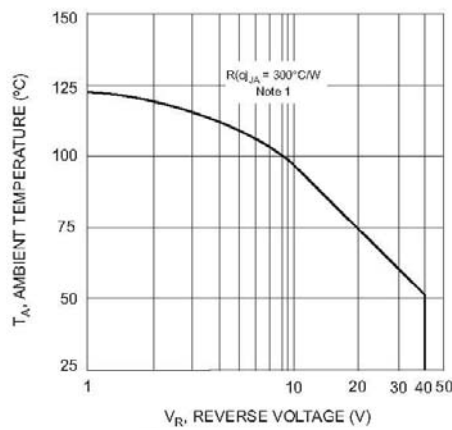
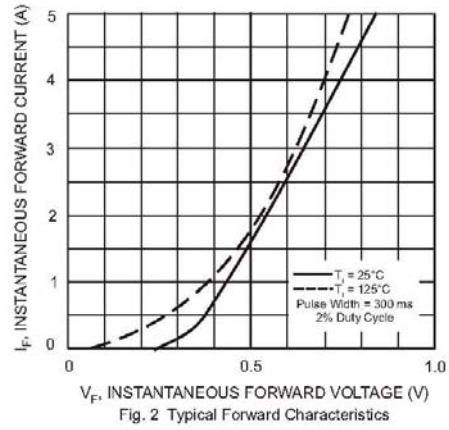
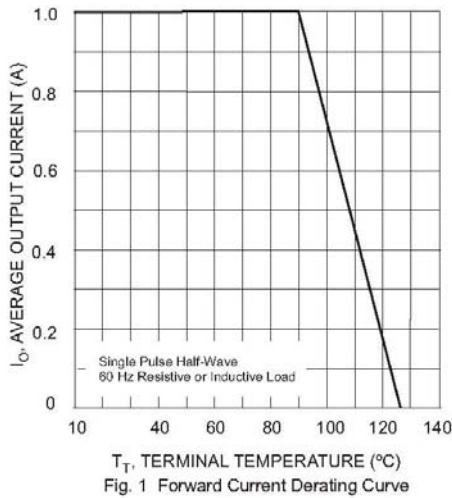


Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V _R	1N5817W 20	V
		1N5818W 30	
		1N5819W 40	
Average Forward Rectified Current	I _{F(AV)}	1	A
Non-Repetitive Peak Forward Surge Current (8.3 ms Single Half Sine-Wave)	I _{FSM}	9	A
Power Dissipation	P _{tot}	450	mW
Operating Temperature Range	T _j	- 55 to + 125	°C
Storage Temperature Range	T _{stg}	- 55 to + 125	°C

Characteristics at T_a = 25 °C

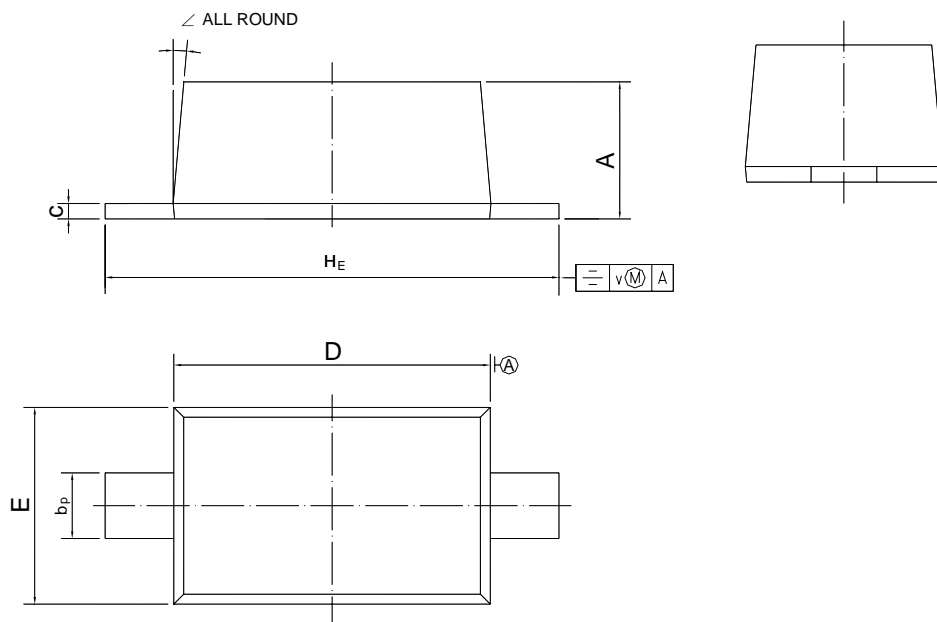
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I _R = 1 mA	V _{(BR)R}	1N5817W 20	-	V
		1N5818W 30	-	
		1N5819W 40	-	
Forward Voltage at I _F = 0.1 A	V _F	1N5819W	-	V
at I _F = 1 A		1N5817W	0.45	
		1N5818W	0.55	
		1N5819W	0.6	
at I _F = 3 A		1N5817W	0.75	
		1N5818W 1N5819W	0.875 0.9	
Reverse Current at V _R = 20 V	I _R	1N5817W	1	mA
at V _R = 30 V		1N5818W	1	
at V _R = 40 V		1N5819W	1	
at V _R = 4 V		1N5819W	0.05	
at V _R = 6 V		1N5819W	0.075	
Total Capacitance at V _R = 4 V, f = 1 MHz	C _{tot}	-	120	pF



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

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UNIT	A	b_p	c	D	E	H_E	v	\angle
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°