

# IN5817 thru IN5819

## MINIATURE SCHOTTKY BARRIER RECTIFIER



**CHENG-YI  
ELECTRONIC**



### FEATURES

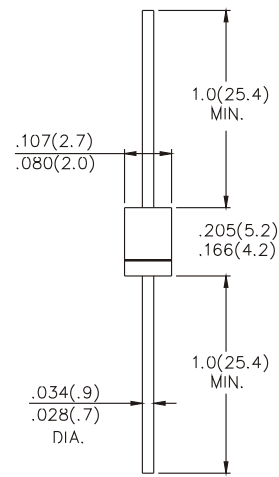
- Low switching noise
- Low forward voltage drop
- High current capability
- High switching capability
- High reliability
- High surge capability

### MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: MIL-STD-202 method 208 guaranteed
- Mounting position: Any

VOLTAGE RANGE  
20 TO 40 Volts  
CURRENT  
1.0 Amperes

### DO-41



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

#### MAXIMUM RATINGS ( At T<sub>A</sub>=25°C unless otherwise noted)

Ratings	Symbol	IN5817	IN5818	IN5819	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T <sub>L</sub> =90°C	I <sub>O</sub>	1.0			Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) T <sub>L</sub> =70°C	I <sub>FSM</sub>	25			Amps
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	80			°C / W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	110			pF
Storage and Operating Temperature Range	T <sub>STG</sub>	-65 to +125			°C

#### ELECTRICAL CHARACTERISTICS ( At T<sub>A</sub>=25°C unless otherwise noted)

Characteristics	Symbol	IN5817	IN5818	IN5819	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V <sub>F</sub>	.45	.55	.60	Volts
Maximum Forward Voltage at 3.1A DC	V <sub>F</sub>	.75	.875	.90	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> =25°C	1.0			mAmps
	@T <sub>C</sub> =100°C	1.0			mAmps

Notes : 1. Thermal Resistance (Junction to Ambient) : Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

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### RATING AND CHARACTERISTICS CURVES IN5817 THRU IN5819

Fig.1 - FORWARD CURRENT DERATING CURVE

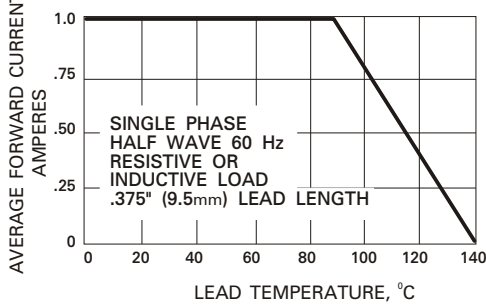


Fig.2 - TYPICAL FORWARD CHARACTERISTICS

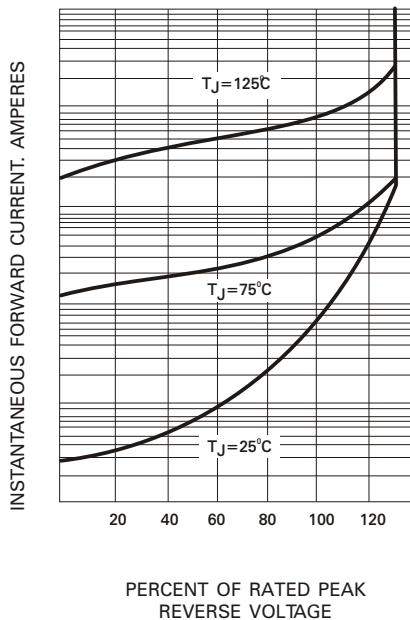


Fig.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

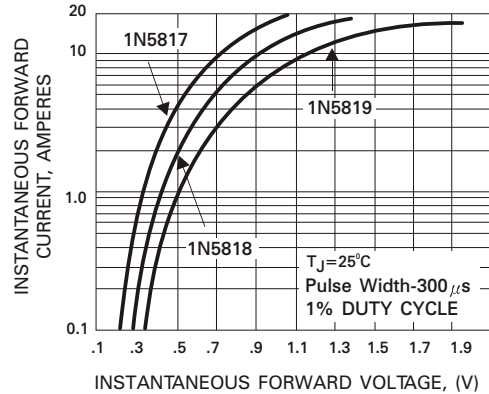


Fig.4 - MAXIMUM NON-REPETITIVE SURGE CURRENT

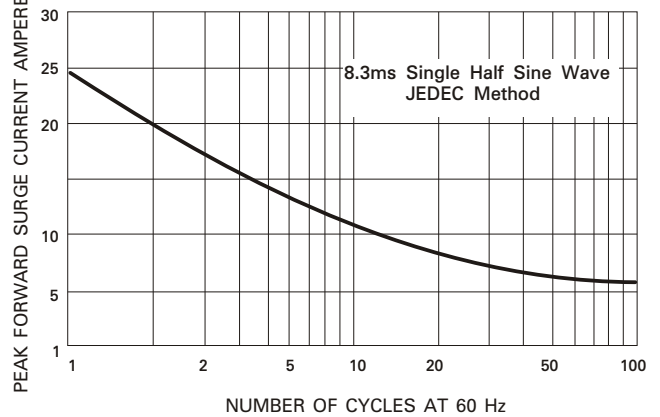


Fig.5 - TYPICAL JUNCTION CAPACITANCE

