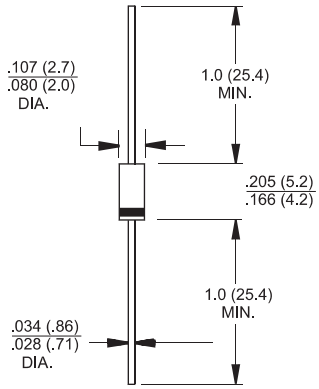
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

1N5817 - 1N5819

1.0 AMP. Schottky Barrier Rectifiers

DO-41



Dimensions in inches and (millimeters)

Features

- ✧ Low power loss, high efficiency.
- ✧ High current capability, Low VF.
- ✧ High reliability
- ✧ High surge current capability.
- ✧ Epitaxial construction.
- ✧ Guard-ring for transient protection.
- ✧ For use in low voltage, high frequency inventor, free wheeling, and polarity protection application.

Mechanical Data

- ✧ Cases: Molded plastic DO-41
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode.
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375",(9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.33 gram

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbol	1N5817	1N5818	1N5819	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @T_L = 90℃	$I_{(AV)}$	1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30			A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	0.45	0.550	0.600	V
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	0.750	0.875	0.900	V
Maximum DC Reverse Current @ T_A=25°C at Rated DC Blocking Voltage @ T_A=125°C	I_R	1.0 10.0			mA mA
Typical Junction Capacitance (Note 2)	Cj	55			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$	100 45			°C/W
Operating Temperature Range	T_J	-65 to +125			°C
Storage Temperature Range	T_{STG}	-65 to +150			°C

Notes: 1. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.