1N5817S THRU 1N5819S

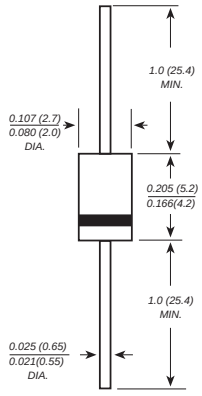
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40Volts Forward Current - 1.0 Ampere

FEATURES

Plastic package has Underwriters Laboratory Flammability Classification 94V-0
Metal silicon junction,majority carrier conduction
Guardring 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
High temperature soldering guaranteed:
260℃/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension

A-405



MECHANICAL DATA

Case: JEDEC A-405 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.008 ounce, 0.23 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	1N5817S	1N5818S	1N5819S	UNITS
Maximum repetitive 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 0.375”(9.5mm) lead length at T_L=90℃	$I_{(AV)}$	1.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0			A
Maximum instantaneous forward voltage at 1.0A	V_F	0.450	0.550	0.600	V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	0.5 10.0			mA
Typical junction capacitance (NOTE 1)	C_J	110.0			pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0			°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +125			°C

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance from junction to ambient at 0.375”(9.5mm)lead length,P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES 1N5817S THRU 1N5819S

FIG. 1- FORWARD CURRENT DERATING CURVE

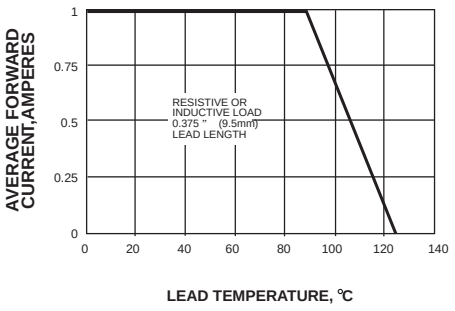


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

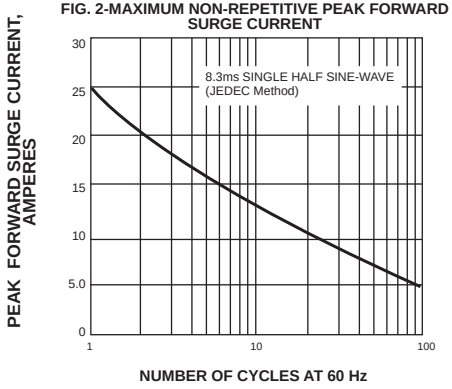


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

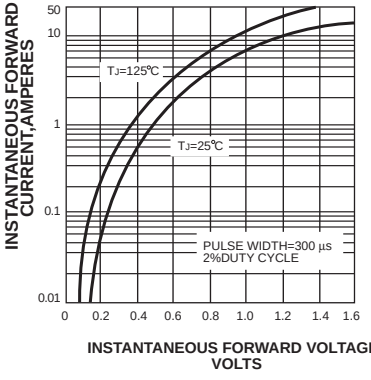


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

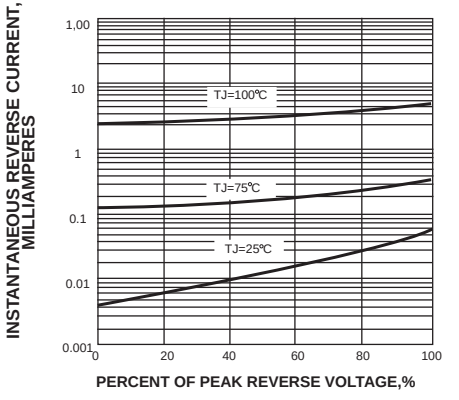


FIG. 5-TYPICAL JUNCTION CAPACITANCE

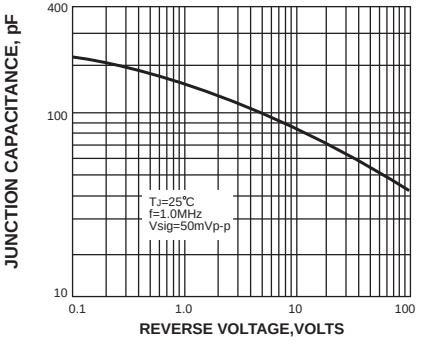


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE