

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts

Forward Current - 1.0Ampere

FEATURES

- . Plastic package has Underwriters Laboratory Flammability Classification 94-0
- . Metal sliicon junction ,majority carriet conduction
- . Guard ring for overcoltage 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 polarilty protection applications
- . High temperature soldering guaranteed: 250 $^{\circ}\text{C}/10$ seconds at terminals,
- . 375"(9.5mm)lead length,5lbs.(2.3kg)tension

MECHANICAL DATA

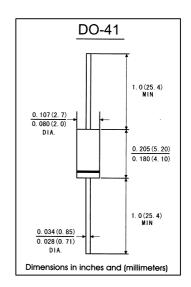
. Case: JEDEC MELG DO-41 molded plastic body

. Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026

. Polarity: color band denotes cathode end

. Mounting Position: Any

. Weight: 0.012 ounce, 0.33 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified,Single phase,half wave,resistive or inductive)

load. For capacitive load, derate by 20%)

		Symbols	1N5817	1N5818	1N5819	Units
Maximum repetitive peak reverse voltage		VRRM	20	30	40	Volts
Maximum RMS voltage		VRMS	14	21	28	Volts
Maximum DC blocking voltage		VDC	20	30	40	Volts
Maximum non-repetitive peak reverse voltage		VRSM	24	36	48	Volts
Macimum average forward rectified		I(AV)	1.0		Amp	
current 0.375"(9.5mm)lead length at TL=90°C		, ,	_			
Peak forward surge current 8.3ms singel half						
sine-wave superimposed on rated load		IFSM	25.0			Amps
(JEDEC method) at TL=70 °C)						
Maximum instantaneous forward voltage at 1.0 A(Note 1)		VF	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.1 A(Note 1)		VF	0.750	0.875	0.900	Volts
Maximum instantaneous reverse	TA=25°C	l _R	0.5		mA	
current at rated DC blocking voltage(Note 1)	TA=100°C		10.0			
Typeical junction capacitance(Note 3)		Сл	110.0			pF
Typeical thermal resistance (Note 2)		R ₀ JA	50.0		°C 0.44	
		RθJL	15.0		°C/W	
Operating junction and storage temperature range		TJ/TSTG	-65 to +125			$^{\circ}$ C

Notes: 1. Pulse test: 300 μ s pulse width,1% duty cycle

- 2.Thermal resistance (from junction to ambient) Vertical P.C.B. Mounted, with 1.5X1.5"(38X38mm) copper pads
- 3.Measured at 1.0MHz and reverse voltage of 4.0 volts



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RATINGS AND CHARACTERISTIC CURVES 1N5817 THRU 1N5819

FLG.1-FORWARD CURRENT DERATING CURVE

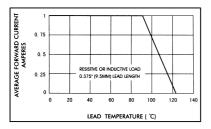


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

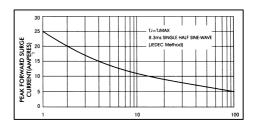


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

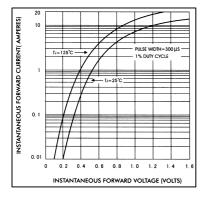


FIG.4-TYPICAL REVERSE CHARACTERISTICS

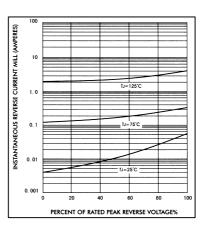


FIG.5-TYPICAL JUNCTION CAPACITANCE

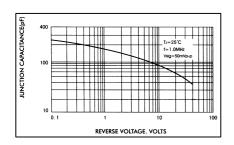


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

