

**1N5823
thru
1N5825**

SCHOTTKY BARRIER RECTIFIERS
VOLTAGE - 20 TO 40 Volts CURRENT - 5.0 Ampere

FEATURES

- High Reliability
- Schottky Barrier Junction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Low Power Loss/ High Efficiency
- High temperature soldering guaranteed:
250°C/10 seconds/.375(9.5mm) lead
lengths at 5 lbs(2.3kg) tension

MECHANICAL DATA

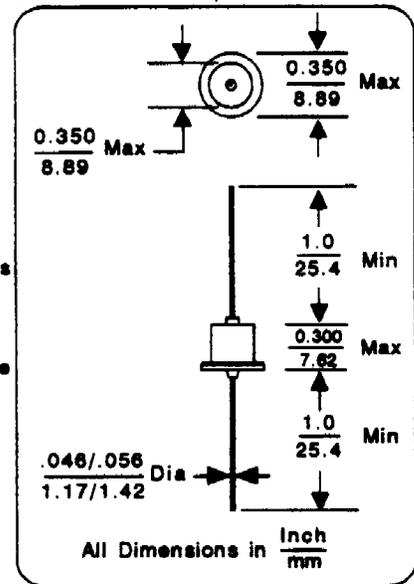
Case: Welded, hermetically
sealed Construction

TERMINALS: Plated axial leads.

WEIGHT: 0.085 ounce, 2.4 grams

MOUNTING POSITION: Any

HANDLING PRECAUTIONS: None



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Single phase, half wave, 60 Hz, resistive or inductive load
For capacitive load, derate current by 20%

Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOL	1N5823	1N5824	1N5825	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}				
Working Peak Reverse Voltage	V_{RWM}	20	30	40	Volts
DC Blocking Voltage	V_R				
Non-Repetitive Peak Reverse Voltage	V_{RSM}	24	36	48	Volts
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	Volts
Average Rectified Forward Current (Note 1)					
$V_{R(EQUIV)} \leq 0.2V_{R(OM)}$, $T_C = 75^\circ\text{C}$	I_O		15		Amps
$V_{R(EQUIV)} \leq 0.2V_{R(OM)}$, $T_C = 80^\circ\text{C}$	I_O		5.0		Amps
Ambient Temperature, Rated $V_{R(OM)}$ $P_{F(AV)} = 0$, $R_{\theta JA} = 25^\circ\text{C/W}$	T_A	65	60	55	°C
Maximum Forward Surge Current 8.3 ms single half sine wave superimposed on rated load	I_{FSM}		500		Amps
Maximum Instantaneous Forward Voltage (Note 2)	V_F				Volts
$I_F = 3.0\text{Amp}$.330	.340	.350	
$I_F = 5.0\text{Amp}$.360	.370	.380	
$I_F = 15.7\text{Amp}$.470	.490	.520	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10	10	10	mA
$T_C = 25^\circ\text{C}$	I_R	100	125	150	mA
$T_C = 100^\circ\text{C}$					
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$		3.0		°C/W
Operating Temperature Range	T_J		-65 to +125		°C
Storage Temperature Range	T_{STG}		-65 to +125		°C

Note 1: Pulse Width = 300 us, Duty Cycle = 2%

Note 2: $R_{\theta JA} = 25^\circ\text{C/W}$. Thermal Resistance from Junction to Ambient at .375(9.5mm) lead lengths, P.C. Board mounted



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