

POWER SCHOTTKY RECTIFIERS

1N6392 120A Pk

FEATURES

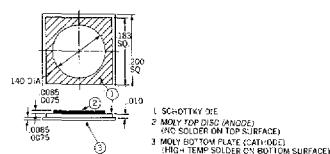
- Very Low Forward Voltage (0.6 at 60A, 125°C)
- Low Recovered Charge
- Rugged Package Design (DO-5)
- High Efficiency for Low Voltage Supplies
- Low Thermal Resistance (1.0°C/W)
- High Surge Current (800A)
- Low Reverse Current (60mA at rated V_R at 125°C)
- Qualified to MIL-S-19500/554

DESCRIPTION

The 1N6392 Schottky barrier power rectifier is ideally suited for output rectifiers and catch diodes in low voltage power supplies. The Microsemi high conductivity design, using a heavy copper top post and 4 point crimp, ensures cool thermal operation and low dynamic impedance. Rugged design absorbs stress that can damage glass-to-metal seal during installation and use.

ABSOLUTE MAXIMUM RATINGS

Working Peak Reverse Voltage, V_{RWM}	45V
DC Blocking Voltage, V_R	45V
Peak Repetitive Surge Voltage, $V_{NSM} @ I_{RM}$	54V
Peak Repetitive Forward Current (Rated V_R , Square Wave, 20kHz, 50% Duty Cycle), I_{FRM}	120A (at $T_c = 115^\circ\text{C}$)
Average Rectified Forward Current, I_{RAV}	60A (at $T_c = 115^\circ\text{C}$)
Non-Repetitive Peak Surge Current (8.3ms), I_{FSM}	1,000A
Peak Reverse Transient Current, I_{RT}	2A
Operating and Storage Temperature Range	-55°C to +175°C
Thermal Resistance, Junction to Case, $R_{\theta JC}$	1.0°C/W

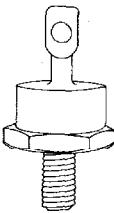


MECHANICAL SPECIFICATIONS

JAN, JANTX, JANTXV 1N6392

	INCHES	MILLIMETERS
A	.225 ± .005	5.72 ± 0.13
B	.060 MIN.	1.52 MIN.
C	.156 ± .020	3.96 ± 0.51
D	.156 MIN. FLAT	3.96 MIN. FLAT
E	.667 DIA. MAX.	16.94 DIA. MAX.
F	.090 MAX.	2.29 MAX.
G	.677 ± .010	17.20 ± 0.25
H	.375 MAX.	9.53 MAX.
J	.140 MIN. DIA.	3.56 MIN. DIA.
K	1.000 MAX.	25.40 MAX.
L	.450 MAX.	11.43 MAX.
M	.438 ± .015	11.13 ± 0.38
N	.078 MAX.	1.98 MAX.

DO-5



NOTES:

1. Cathode is stud.
2. All metal surfaces tin plated.
3. Maximum unlubricated stud torque: 30 inch pounds (35 kg. cm).
4. Angular orientation of terminal is undefined.

Microsemi Corp.
Watertown
The diode experts

ELECTRICAL CHARACTERISTICS ($T_{CASE} = 25^\circ\text{C}$)

Characteristic	Symbol	Limit	Units	Conditions
Maximum Instantaneous Reverse Current	i_R	20 60 600	mA mA mA	$V_R = V_{RW(M)}$ $T_c = 125^\circ\text{C}$ $T_c = 175^\circ\text{C}$ Pulse Width = 400 μs Duty Cycle = 1%
Maximum Instantaneous Forward Voltage	V_F	0.47 0.68 0.82	V V V	$i_F = 10\text{A}, T_c = 25^\circ\text{C}$ $i_F = 60\text{A}, T_c = 25^\circ\text{C}$ $i_F = 120\text{A}, T_c = 125^\circ\text{C}$ Pulse Width = 300 μs Duty Cycle = 1%
Maximum Capacitance	C_t	3000	pF	$V_R = 5.0\text{V}$

