

POWER SCHOTTKY RECTIFIERS

50A Pk, 45V

1N6391
JAN, JANTX, JANTXV

FEATURES

- Very Low Forward Voltage
- Low Recovered Charge
- Rugged Package Design (DO-4)
- High Efficiency for Low Voltage Supplies
- 45V Blocking @ Rated T_{jmax}
- 54V Repetitive Surge Voltage
- Qualified to MIL-S-19500/553

DESCRIPTION

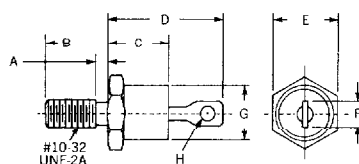
The 1N6391 has a Schottky barrier junction and is ideally suited for output rectifiers and catch diodes in low voltage power supplies. Rugged design absorbs stress that can damage glass-to-metal seal during installation and use.

ABSOLUTE MAXIMUM RATINGS

Working Peak Reverse Voltage, V_{RWM}	45V
DC Blocking Voltage, V_R	45V
Peak Repetitive Surge Voltage, V_{RSM} @ I_{RM}	54V
Average Rectified Forward Current, I_o @ $T_c = 125^\circ C$	25A
Peak Repetitive Forward Current (Rated V_R , Square Wave, 20kHz, 50% Duty Cycle), I_{FRM} @ $T_c = 125^\circ C$	50A
Non-Repetitive Peak Surge Current (8.3ms), I_{FSM}	600A
Peak Reverse Transient Current, I_{RM}	2A
Operating and Storage Temperature Range	$-55^\circ C$ to $+175^\circ C$
Thermal Resistance, Junction to Case, $R_{\theta jc}$	$2.0^\circ C/W$

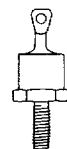
MECHANICAL SPECIFICATIONS

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	INCHES	MILLIMETERS
A	.078 MAX.	1.98 MAX.
B	.437 ± .015	11.10 ± 0.38
C	.405 MAX.	10.29 MAX.
D	.800 MAX.	20.32 MAX.
E	.430 ± .010	10.92 ± 0.25
F	.250 MAX.	6.35 MAX.
G	.424 MAX.	10.77 MAX.
H	.066 MIN. DIA.	1.68 MIN. DIA.

DO-4



NOTES:

1. Cathode is stud.
2. All metal surfaces tin plated.
3. Maximum unlubricated stud torque: 10 inch pounds.
4. Angular orientation of terminal is undefined.

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

Characteristic	Symbol	Limit	Units	Conditions
Maximum Instantaneous Reverse Current	i_R	15 40 400	mA mA mA	$T_C = 25^{\circ}\text{C}$, $V_R = V_{\text{RWM}}$ $T_C = 125^{\circ}\text{C}$ $T_C = 175^{\circ}\text{C}$ Pulse Width = $400\mu\text{s}$ Duty Cycle = 1%
Maximum Instantaneous Forward Voltage	V_F	0.44 0.68	V V	$i_F = 5\text{A}$, $T_C = 25^{\circ}\text{C}$ $i_F = 50\text{A}$, $T_C = 25^{\circ}\text{C}$ Pulse Width = $300\mu\text{s}$ Duty Cycle = 1%
Capacitance	C_t	2000	pF	$V_R = 5.0\text{V}$

