

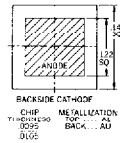
# RECTIFIERS

Military Approved  
High Efficiency, 20 Amp

1N5812, 1N5814, 1N5816  
JAN, JANTX & JANTXV

### FEATURES

- Qualified to MIL-S-19500/478
- Exceptional Efficiency
- Mechanically Rugged
- Low Thermal Resistance
- JAN, JANTX and JANTXV Available



### DESCRIPTION

This series is suited for use as a power rectifier in switching regulator and high frequency inverter/converter and other appropriate equipment circuits where low voltage drop and fast recovery times are important.

### ABSOLUTE MAXIMUM RATINGS

Peak Inverse Voltage	Type
50V	JAN, JANTX, JANTXV 1N5812
100V	JAN, JANTX, JANTXV, 1N5814
150V	JAN, JANTX, JANTXV 1N5816

### Maximum Average D.C. Output Current

- @  $T_c = 100^\circ\text{C}$  ..... 20A
- @  $T_A = 55^\circ\text{C}$  ..... 5A

### Non-Repetitive Sinusoidal

- Surge Current @ 8.3mSec ..... 400A

Thermal Resistance, Junction to Case .....  $1.5^\circ\text{C/W}$

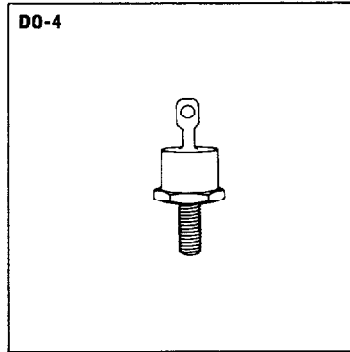
Operating Junction Temperature .....  $-65^\circ\text{C}$  to  $+175^\circ\text{C}$

Storage Ambient Temperature .....  $-65^\circ\text{C}$  to  $+200^\circ\text{C}$

### MECHANICAL SPECIFICATIONS

**J, JTX, JTXV 1N5812, 1N5814, 1N5816**

	ins.	mm
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	.490 ± .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.



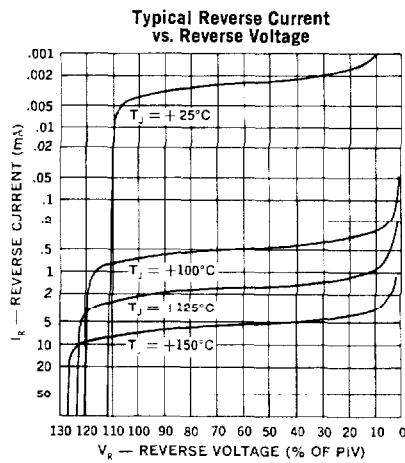
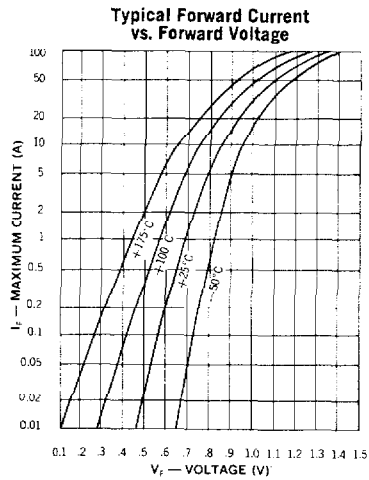
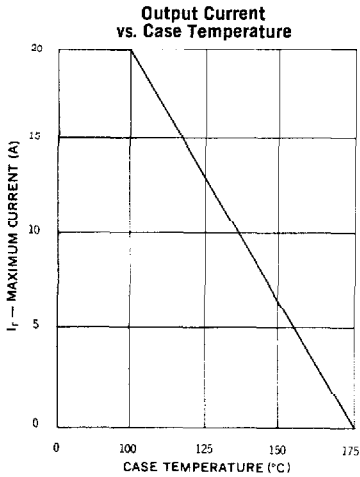
### Notes:

1. Polarity is cathode-to-stud.
2. All metal surfaces tin plated.
3. Maximum unlubricated stud torque: 15 inch pounds.
4. Angular orientation of terminal is undefined.

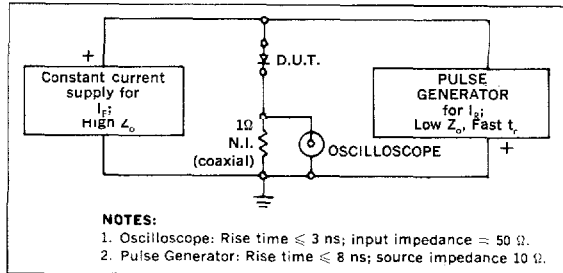
**ELECTRICAL SPECIFICATIONS (at 25°C unless noted)**

Type	Peak Inverse Voltage	Minimum Reverse Breakdown Voltage @ 100 $\mu$ A	Peak Forward Voltage		Maximum Leakage Current @ PIV	
			@ 10Apk	@ 20Apk	25°C	100°C
J, JTX, JTXV 1N5812	50V	60V				
J, JTX, JTXV 1N5814	100V	110V	.86V MAX.	.95V MAX.	10 $\mu$ A	750 $\mu$ A
J, JTX, JTXV 1N5816	150V	160V				

Maximum Reverse Recovery Time @ $I_F, I_R, I_{REC}$	Maximum Forward Recovery Time @ 1A Recovery to 1V	Maximum Forward Recovery Voltage @ 1A tr = 8nsec	Maximum Junction Capacitance @ -10V
35nsec 1.0A -1.0A -0.1A	15nsec	2.2V	300pf



**Reverse-Recovery Time Test Circuit**



**Characteristic Waveform**

