

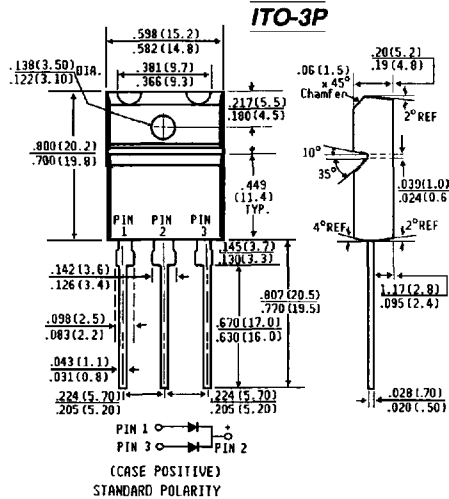
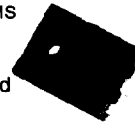
UGF30APT THRU UGF30DPT

ULTRAFAST RECTIFIER

Voltage - 50 to 200 Volts Current - 30 Amperes

FEATURES

- ◆ Isolated Plastic material used carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Internal Insulation: 1.5k VRMS
- ◆ Ideally suited for use in very high frequency switching power supplies, inverters and as a free wheeling diodes
- ◆ Ultrafast 30 nanosecond recovery times
- ◆ Low leakage current
- ◆ Glass passivated junction
- ◆ Soft recovery characteristics
- ◆ Excellent high temperature switching
- ◆ High temperature soldering guaranteed: 250 °C/10 seconds at terminals



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: ITO-3P Fully overmolded plastic
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Mounting Torque: 10 in.-lb. max.
Weight: 0.037 ounce, 1.04 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

| | SYMBOLS | UGF30APT | UGF30BPT | UGF30CPT | UGF30DPT | UNITS |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------|----------|----------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 150 | 200 | Volts |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 105 | 140 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 150 | 200 | Volts |
| Maximum Average Forward Rectified Current at T _C =120°C | I _(AV) | 30.0 | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 300.0 | | | | Amps |
| Maximum Instantaneous Forward Voltage per leg at: 15A 30A 10A, T _J =100°C | V _F | 1.0 1.15 .85 | | | | Volts |
| Maximum DC Reverse Current T _A =25°C at Rated DC Blocking Voltage per leg T _A =100°C | I _R | 15.0 800.0 | | | | µA |
| Maximum Reverse Recovery Time Per Leg (NOTE 1) | T _{RR} | 20.0 | | | | ns |
| Maximum Reverse Recovery Time Per Leg (NOTE 2) T _J =25°C T _J =100°C | T _{RR} | 35.0 50.0 | | | | ns |
| Maximum Stored Charge Per Leg (NOTE 2) T _J =25°C T _J =100°C | Q _{RR} | 22.0 50.0 | | | | nC |
| Typical Junction Capacitance Per Leg (NOTE 3) | C _J | 75.0 | | | | pf |
| Typical Thermal Resistance (NOTE 4) | R _{θJC} | 1.5 | | | | °C/W |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | °C |

NOTES: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, recover to 0.25A.
 2. T_{RR} and Q_{RR} measured on LEM tester: V_R=30V, di/dt=50 A/µs I_F=15.0A
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
 4. Thermal Resistance from Junction to Case per element.

RATINGS AND CHARACTERISTIC CURVES UGF30APT THRU UGF30DPT

