

MUR3020PT THRU MUR3060PT
SUPER FAST RECTIFIER

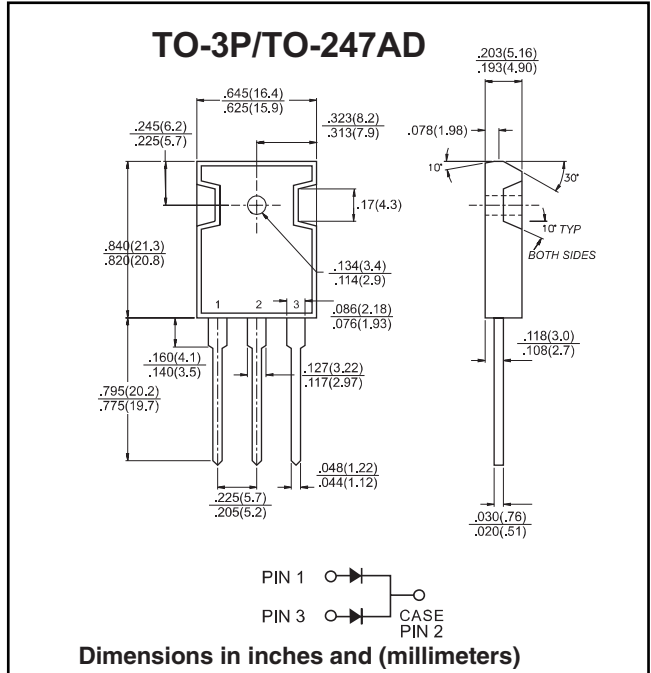


FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- High speed switching for high efficiency
- Low reverse leakage
- High forward surge current capability

MECHANICAL DATA

Case: TO-3P molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.072 ounce, 2.05 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbol	MUR3020PT	MUR3030PT	MUR3040PT	MUR3060PT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	300	400	600	Volts
Maximum RMS voltage	V_{RMS}	140	210	280	420	Volts
Maximum DC blocking voltage	V_{DC}	200	300	400	600	Volts
Maximum average forward rectified current at $T_C=120^\circ\text{C}$	$I_{F(AV)}$	30.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	380.0				Amps
Maximum instantaneous forward voltage at 4.0A per element	V_F	1.1		1.3	1.5	Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	10.0 500				μA
Maximum reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$	t_{rr}	35		50		nS
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150				$^\circ\text{C}$

Notes: 1. Pulse test: Pulse width 300 usec, Duty cycle 2%

RATINGS AND CHARACTERISTIC CURVES

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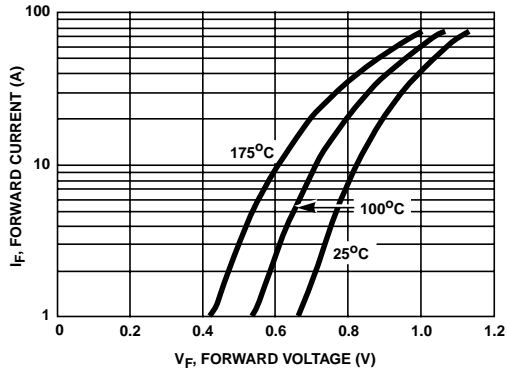


FIGURE 1. FORWARD CURRENT vs FORWARD VOLTAGE

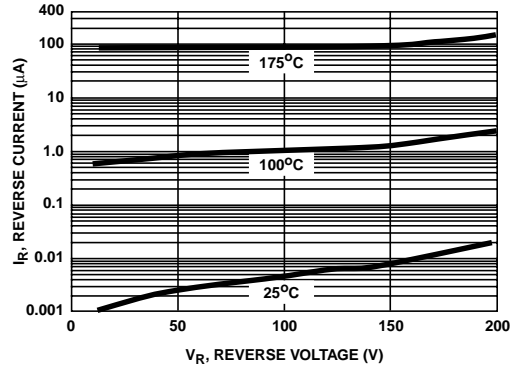


FIGURE 2. REVERSE CURRENT vs REVERSE VOLTAGE

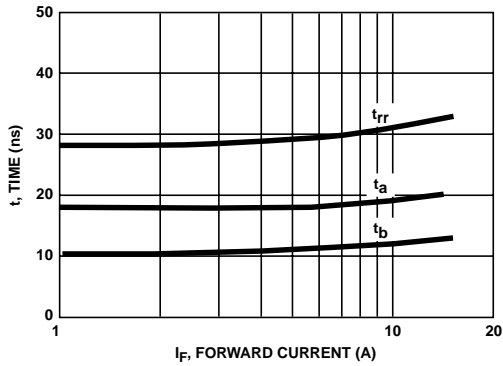


FIGURE 3. t_{rr} , t_a AND t_b CURVES vs FORWARD CURRENT

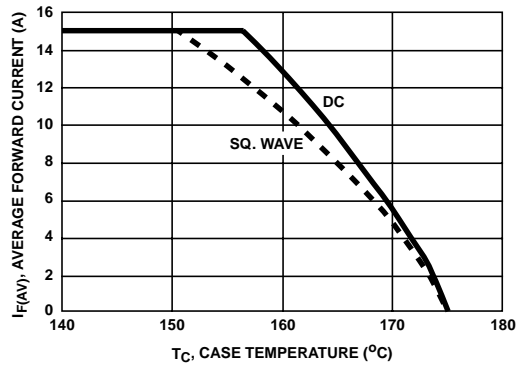


FIGURE 4. CURRENT DERATING CURVE