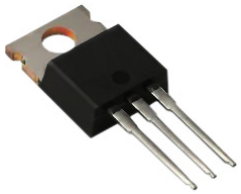
Ultra Fast Rectifier

multicomp PRO



Features:

- Fred chip construction
- Soft recovery characteristics
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability
- Plastic material has UL flammability classification 94V-0

Mechanical Data:

Case	: TO-220AB, molded plastic
Terminals	: Pure tin plated, lead solderable per MIL-STD-750, method 2026
Polarity	: As marked on the body
Weight	: 1.9 grams (approx)
Mounting Position	: Any
Reverse Voltage	: 400 to 600 Volts
Forward Current	: 16 Amperes

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristics	Symbol	MUR1640CT	MUR1660CT	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	400	600	V
Max. RMS Voltage	V_{RMS}	400	420	
Max. DC Blocking Voltage	V_{DC}	280	600	
Max. Average Forward Rectified Current	$I_{F(AV)}$	16		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	150		
Max. Forward Voltage at 8A per leg	V_F	1.3	1.5	V
Max. DC Reverse Current T_J = 25°C Rated DC Blocking Voltage T_J = 125°C	I_R	10 250		mA
Typical Thermal Resistance	$R_{\theta JC}$	2		°C/W
Max. Reverse Recovery Time (I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A)	T_{RR}	50		
Operating Temperature Range	T_J	-55 to +150		°C
Storage Temperature Range	T_{STG}			

Notes:

1. Mounted on 14mm × 14mm pad areas, 1oz. FR4 P.C.B.
2. Free air, mounted on recommended copper pad area.
3. Pulse test: 300μs pulse width,1% duty cycle.
4. Pulse test: Pulse width ≦40ms
5. The typical data above is for reference only

Ratings and Characteristic Curves

FIG. 1 - FORWARD CURRENT DERATING CURVE

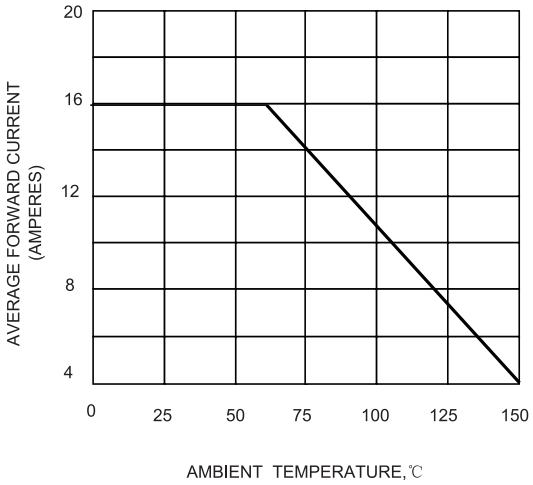


FIG.2-MAXIMUM NON-REPETITVE FORWARD SURGE CURRENT

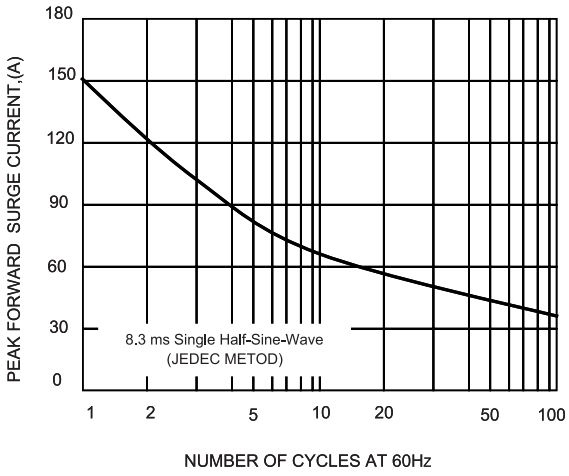


FIG.3-TYPICAL FORWARD CHARACTERISTICS

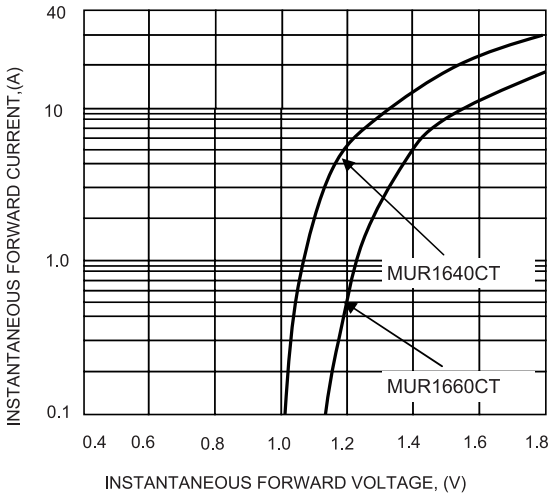
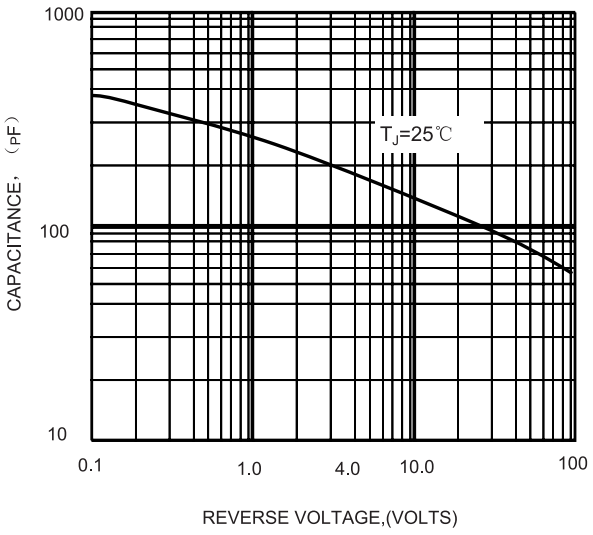
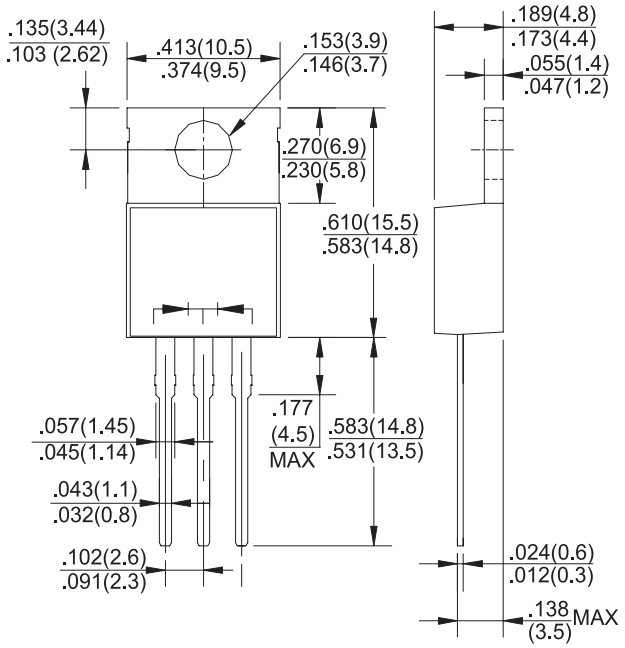


FIG.4-TYPICAL JUNCTION CAPACITANCE



Dimensions:

TO-220AB



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Ultra Fast Rectifiers	MUR1640CT
	MUR1660CT