

GLASS PASSIVATED SUPER FAST RECTIFIER

FEATURES

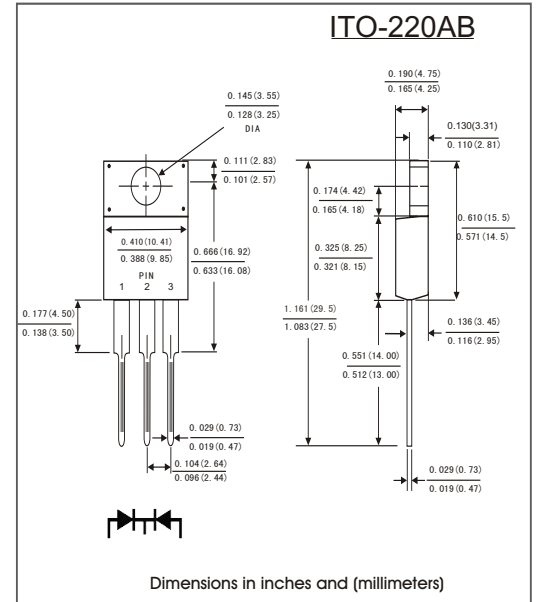
- High Performance & Reliability best suited for Automotive application
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low forward voltage drop
- Single rectifier construction
- High surge capability

For use in low voltage, high frequency inverters , free wheeling and polarity protection applications

- High temperature soldering guaranteed:260 C/10 seconds, 0.25”(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case: JEDEC ITO-220AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750 method 2026
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08ounce, 2.24 gram



MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

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

PARAMETER		Symbols	MURF1620CT	MURF1640CT	MURF1660CT	Units
Maximum repetitive peak reverse voltage		V_{RRM}	200	400	600	Volts
Maximum RMS voltage		V_{RMS}	140	280	420	Volts
Maximum DC blocking voltage		V_{DC}	200	400	600	Volts
Maximum average forward rectified current(Fig.1)	Per leg	$I_{(AV)}$	8.0			Amps
	Total Device		16.0			
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)		I_{FSM}	150			Amps
Maximum instantaneous forward voltage at 16.0 A(Note1)		V_F	0.975	1.3	1.5	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note1)	$T_a=25\text{ }^\circ\text{C}$	I_R	5	10		μA
	$T_a=125\text{ }^\circ\text{C}$		500			
Maximum Reverse Recovery Time(Note 2)		T_{rr}	35			ns
Typical thermal resistance(Note 3)		$R_{\theta JC}$	3.0			$^\circ\text{C/W}$
Operating junction temperature range		T_J	-65 to +175			$^\circ\text{C}$
Storage temperature range		T_{STG}	-65 to +175			$^\circ\text{C}$

Notes:

1. Pulse test:300 μs pulse width,1% duty cycle.
2. Reverse recovery test conditions $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
3. Thermal resistance from junction to case

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RATING AND CHARACTERISTIC CURVES MURF1620CT - MURF1660CT

FIG.1-FORWARD CURRENT DERATING CURVE

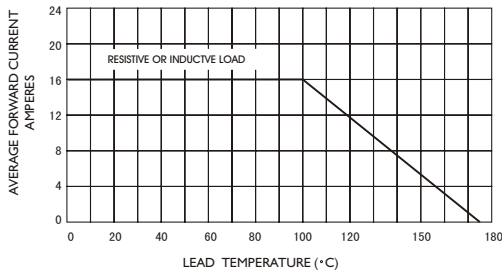


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

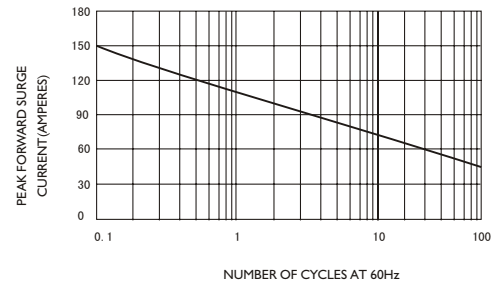


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

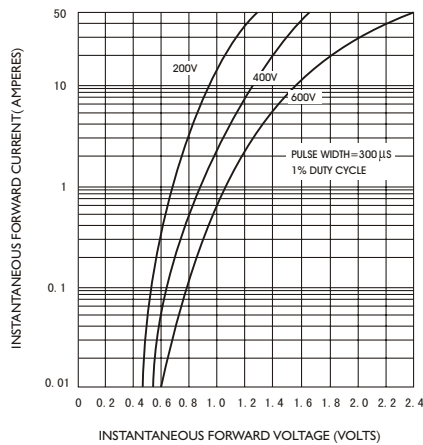


FIG.4-TYPICAL REVERSE CHARACTERISTICS

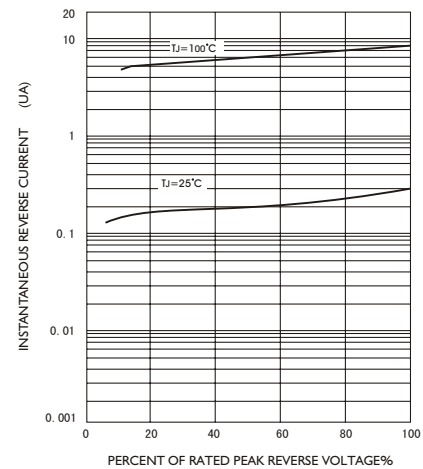


FIG.5-TYPICAL JUNCTION CAPACITANCE

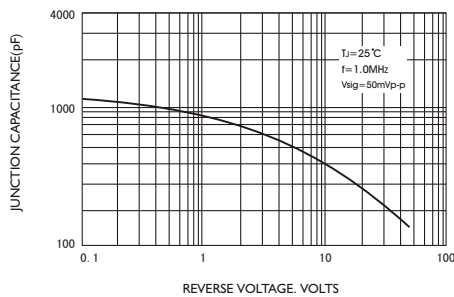
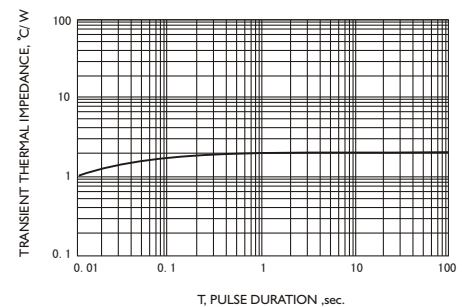


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.