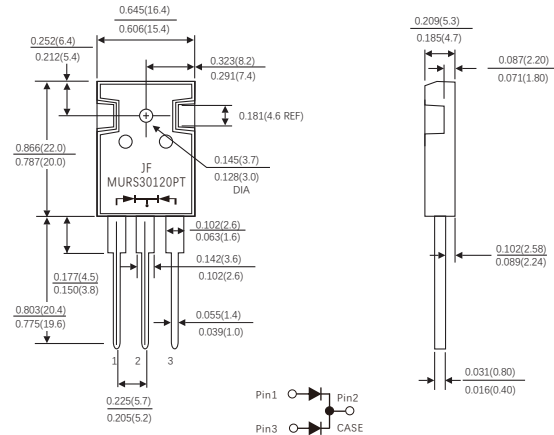


FEATURES

- Fred Chip Planar Construction
- SuperFast Switching,High Efficiency
- Low Power loss, High Efficiency
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0

TO-247AB



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC TO-247AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750.method 2026
- Polarity: As marked
- Mounting Position: Any
- weight: 6.3g(Approx.)

TYPICAL APPLICATIONS

- For use in boost stage in SMPS
- High frequency inverters for solar inverters
- DC/DC converters
- High frequency output rectification of battery chargers
- Free wheeling diodes in motor drivers

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, derate current by 20%.)

Parameters	Symbol	MURS30120PT		Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1200		V
Maximum RMS Voltage	V_{RMS}	840		V
Maximum DC Blocking Voltage	V_{DC}	1200		V
Maximum Average Forward (See Figure 1)	$I_{F(AV)}$	Per leg Total device	15 30	A
Peak Forward Surge Current : 8.3ms single half sine -wave superimposed on rated load(JEDEC method),Per leg	I_{FSM}	150		A
Maximum Forward Voltage at 15A per leg	V_F	Typ.	Max.	V
		2.7	3.3	
Maximum Reverse Recovery Time (Measured With $I_F=0.5A$, $I_R=1.0A$, $IRR=0.25A$)	T_{rr}	Typ.	Max.	nS
		35	50	
Maximum DC Reverse Current at Rated DC Blocking Voltag	I_R	$T_j=25^\circ C$ $T_j=125^\circ C$	5 100	μA
Typical Thermal Resistance Junction to case	$R_{\theta JC}$	1.0		$^\circ C/W$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	45		$^\circ C/W$
Operating Junction and Storage Temperature Range	T_j, T_{STG}	-55 to +150		$^\circ C$

Fig-1 FORWARD CURRENT DERATING CURVE

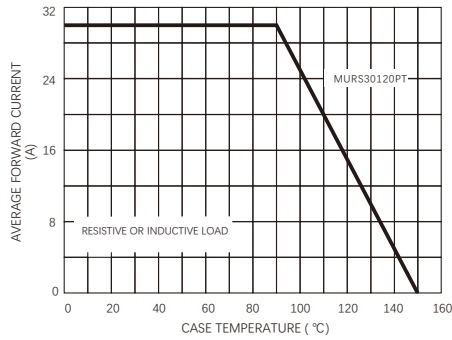


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

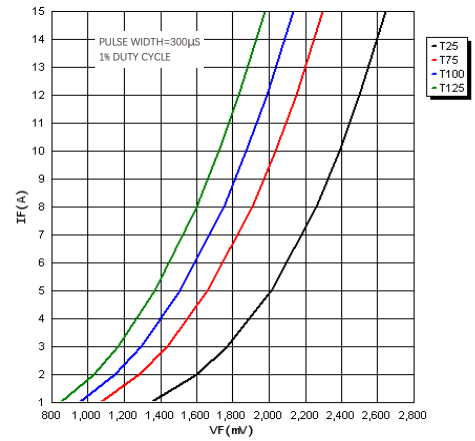


FIG.3-TYPICAL REVERSE CHARACTERISTICS

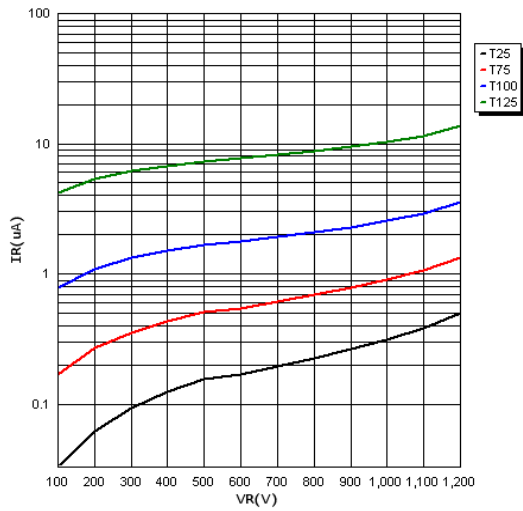
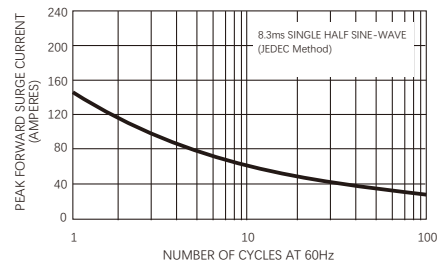


FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



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