MURS30150

POLYIMIDE PASSIVATED SUPER FAST RECTIFIER

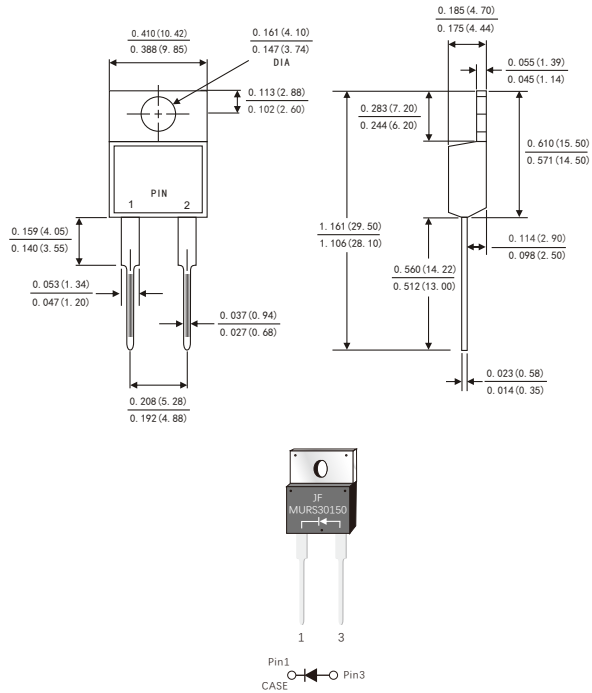
Reverse Voltage - 1500 Volts
Forward Current -30.0Amperes

SEMICONDUCTOR

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low forward voltage drop
- Ultrafast Recovery Time
- High surge current capability
- For use in free wheeling,snubber,clamp,inversion welder, PFC,Plating Power Supply
- High temperature soldering guaranteed:260℃/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

TO-220AC



MECHANICAL DATA

- Case: JEDEC TO-220AC molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

MAXIMUM RATINGS

(Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1500	V
Maximum average forward rectified current (see fig.1)	$I_{F(AV)}$	30.0	A
Surge non repetitive forward current tp=10ms sinusoidal	I_{FSM}	250	A
Maximum operating junction temperature	T_J	175	℃
Storage temperature range	T_{stg}	-55 to+175	℃

ELECTRICAL CHARACTERISTCS (TA=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	I_F=30.0A	T_J=25℃	V_F 1)	2.0	2.5	V
		T_J=125℃		1.75	-	
Reverse current	V_R=1500V	T_J=25℃	I_R 2)	-	5.0	μA
		T_J=125℃		-	250	

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

DYNAMIC RECOVERY CHARACTERISTCS (T_J=25℃)

Parameters	Test Conditions	Symbol	Min.	Typ.	Max.	Units
Reverse recovery time	I_F=0.5A,I_R=1A,I_{RR}=0.25A	trr	-	75	90	ns

THERMAL CHARACTERISTCS

Parameter	Symbol	MURS30150	Unit
Typical thermal resistance 3)	$R_{\theta JC}$	0.8	℃/W

3.Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC OF MURS30150

FIG.1-FORWARD CURRENT DERATING CURVE

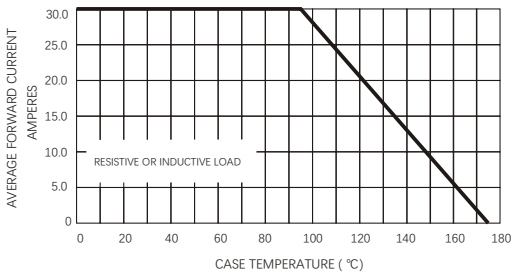


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

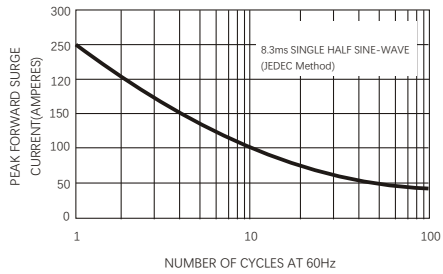


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

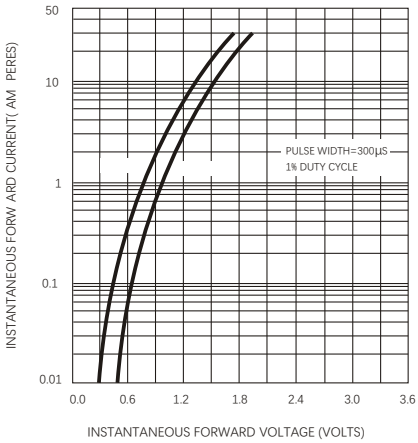
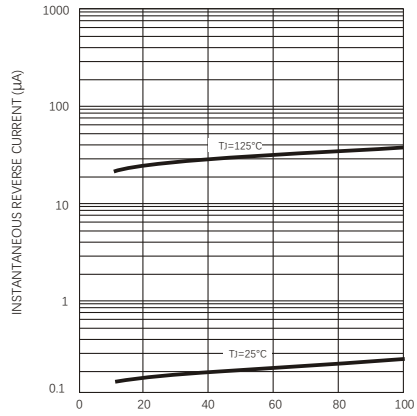


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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