

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ultrafast Recovery Characteristics
- Low forward voltage drop
- Low Reverse Leakage Current
- Soft Recovery Characteristics
- High temperature soldering guaranteed:260°C/10 seconds,
0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

MECHANICAL DATA

- Case: TO-247AC molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

APPLICATIONS

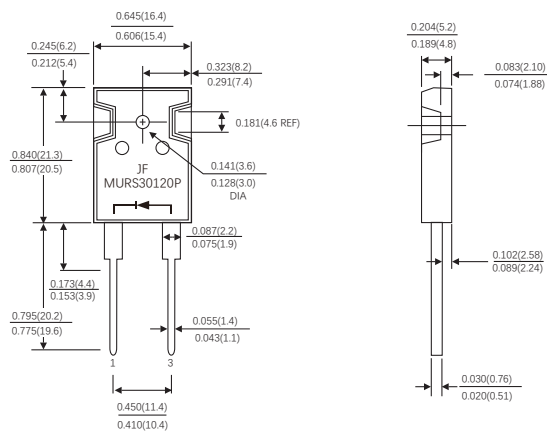
- Anti-Parallel Diode
 - Switching Power Supply
 - Inverters
- Free wheeling Diode
 - Motor Controller
 - Converters
 - Inverters
- PFC
- Snubber,Clamp diode

MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified)

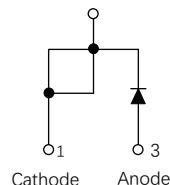
Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1200	V
Maximum average forward rectified current	$I_{F(AV)}$	30	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_J)	I_{FSM}	300	A
Operating junction temperature range	T_J	-55 to+175	°C
Storage temperature range	T_{stg}	-55 to+175	°C

TO-247AC



Dimensions in inches and (millimeters)

Base common cathode



RATINGS AND CHARACTERISTIC OF MURS30120P

ELECTRICAL CHARACTERISTICS (T_J=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	I _R =200μA		V _{BR} V _R	1200	-	-	V
Instaneous forward voltage	T _J =25°C	I _F =30A	V _F ¹⁾	-	2.70	3.40	V
	T _J =125°C			-	2.30	-	
Reverse current	T _J =25°C	V _R =1200V	I _R ²⁾	-	-	10.0	μA
	T _J =125°C			-	-	250	

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

DYNAMIC RECOVERY CHARACTERISTICS (T_J=25°C Unless otherwise noted)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A	t _{rr}	-	-	60	ns
	I _F =1A,dI _F /dt=200A/μs,V _R =30V	t _{rr}	-	30	-	

THERMAL CHARACTERISTICS

Parameter	Symbol	Typ.	Max.	Unit
Typical thermal resistance ³⁾	R _{θJC}	0.40	-	°C/W

3.Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC OF MURS30120P

FIG.1-FORWARD CURRENT DERATING CURVE

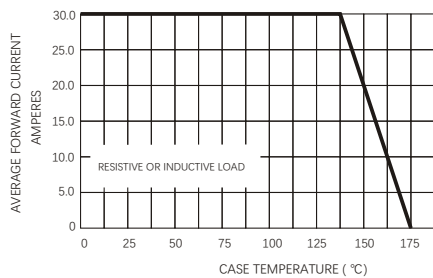


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

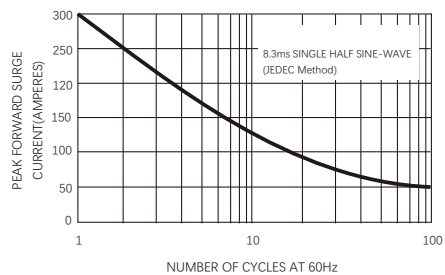


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

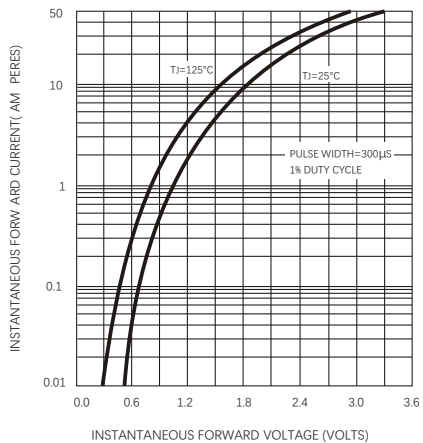
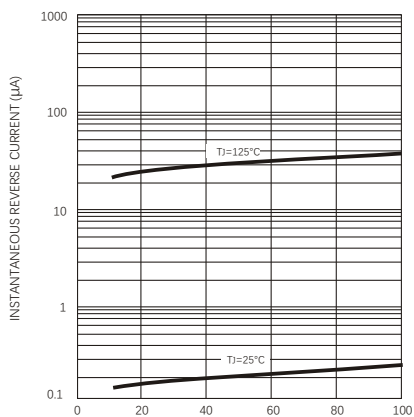


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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