SEMICONDUCTOR

MURS7560P

POLYIMIDE PASSIVATED SUPER FAST RECTIFIER

Reverse Voltage - 600 Volts
Forward Current - 75Amperes

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℃/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

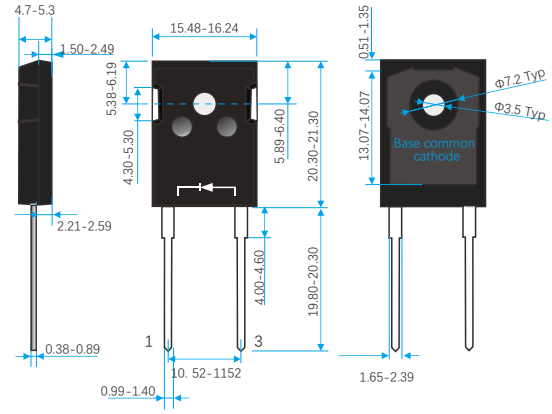
Mechanical Data

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

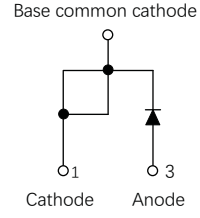
Applications

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

TO-247AC



Dimensions in millimeters



Maximum Ratings

(Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum average forward rectified current	$I_{F(AV)}$	75	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_l)	I_{FSM}	560	A
Operating junction temperature range	T_J	-55 to+175	℃
Storage temperature range	T_{stg}	-55 to+175	℃

Electrical Characteristcs (T_J=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	I_R=100 μA		V_{BR} V_R	600	-	-	V
Instaneous forward voltage	T_J=25℃	I_F=75A	V_F 1)	-	1.50	1.85	V
	T_J=125℃	I_F=75A		-	1.32	1.65	
Reverse current	T_J=25℃	V_R=600V	I_R 2)	-	-	5	μA
	T_J=125℃			-	-	100	μA
	T_J=150℃			-	-	300	

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

2.Pulse test: pulse width≤40ms

Dynamic Recovery Characteristcs (T_J=25℃ Unless otherwise noted)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	I_F=0.5A,I_R=1.0A, Irr=0.25A	trr	-	-	80	ns
	I_F=1A, V_R=30V dI /dt=200A/μS		-	35	50	
	I_F=75A, V_R=200V dI /dt=200A/μS		-	65	-	

Thermal Characteristcs

Parameter	Symbol	TO-247AC	Unit
Typical thermal resistance 3)	$R_{\theta JC}$	0.70	℃/W

3.Thermal resistance from junction to case

Availabale Pack Information

Product code	Pack	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton SizeL×W×H(mm)	Quantity(box/carton)
MURS7560P-TO-247AC	P/T	530×110×60	360	550×330×130	5

FIG.1-Forward Current Derating Curve

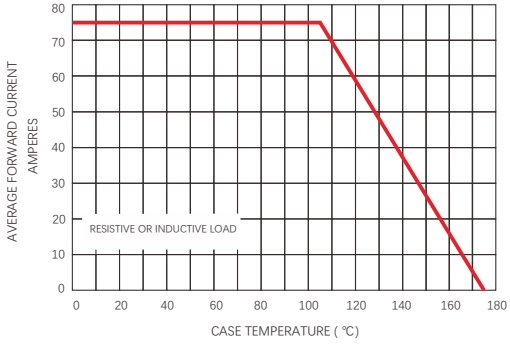


FIG.2-Maximum Non-Repetitive Peak Forward Surge Current

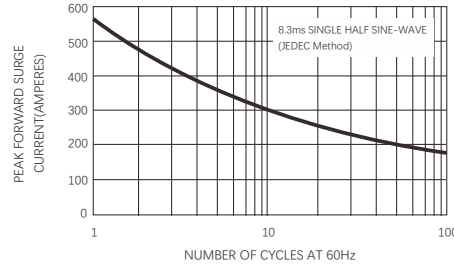


FIG.3-Typical Instantaneous Forward Characteristics

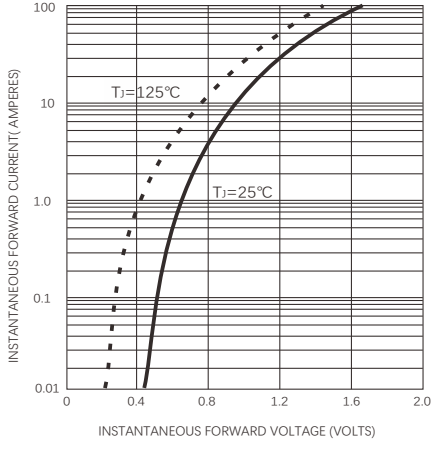
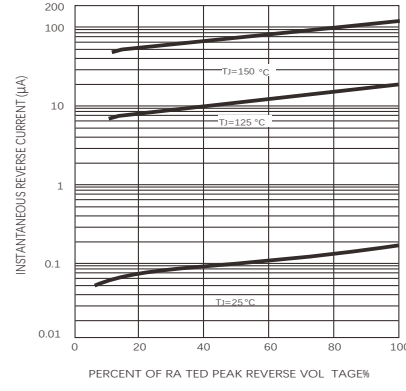


FIG.4-Typical Reverse Characteristics



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