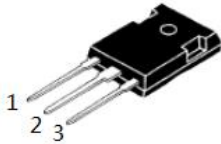


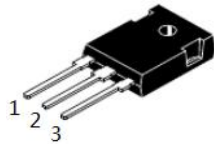


# MUR3020PT/PTS

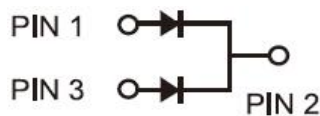
## ULTRAFAST RECOVERY RECTIFIERS



TO-247/PT



TO-247S/PTS



### FEATURES

- High speed switching capability
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- High reliability
- For use in low voltage, high frequency inverters



RoHS  
COMPLIANT

### APPLICATIONS

Fast recovery diode, mainly used for rectification, used in high-power equipment, The express and ultrafast recovery diodes are suitable for high frequency and ultra high frequency circuits, respectively

### Primary Characteristic

$I_O$	2*15A
$V_{RRM}$	200V
$I_{FSM}$	150A
$V_F$	0.88V
$T_{jmax}$	175°C

### MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum, 10s per JESD 22-B106

### Maximum Ratings (Per Leg) at $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
Working Peak Reverse Voltage	$V_{RWM}$	200	V
Maximum DC Blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Rectified Current	$I_O$	15	A
Per Leg		30	
Total			
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	150	A
Operating Temperature Range	$T_J$	175	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	2	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

### Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V <sub>F</sub>	Typ.	Max.	V
at I <sub>F</sub> =3A	TA=25°C		0.79	-	
	TA=125°C		0.65	-	
at I <sub>F</sub> =5A	TA=25°C		0.84	-	
	TA=125°C		0.71	-	
at I <sub>F</sub> =15A	TA=25°C		0.98	1.05	
	TA=125°C		0.88	-	
Maximum Reverse Current at V <sub>R</sub> =200V	TA=25°C		0.1	10	
	TA=125°C	2	-	μA	
Maximum Reverse Recovery Time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1A,		T <sub>rr</sub>	-	25	ns

Note2: Pulse test: 300  $\mu$ s pulse width, 1 % duty cycle



**MUR3020PT/PTS**

**ULTRAFAST RECOVERY RECTIFIERS**

## RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

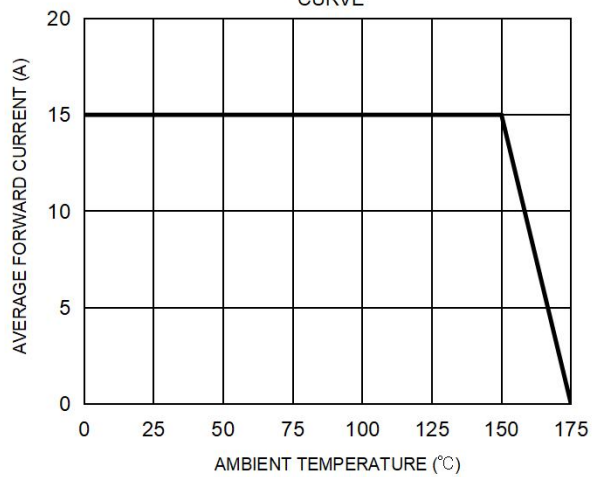


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

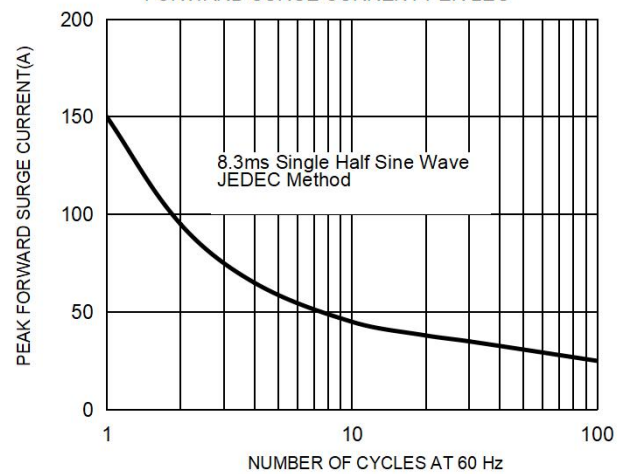


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

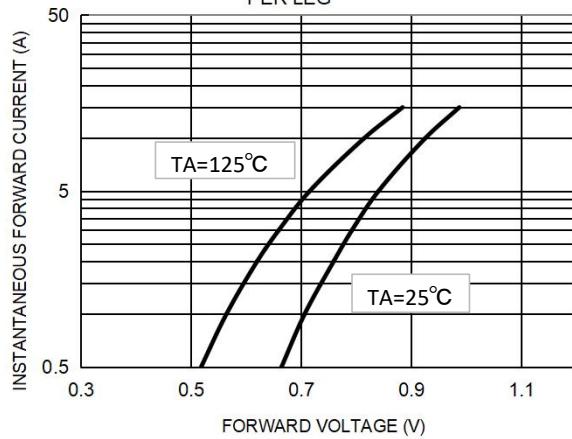
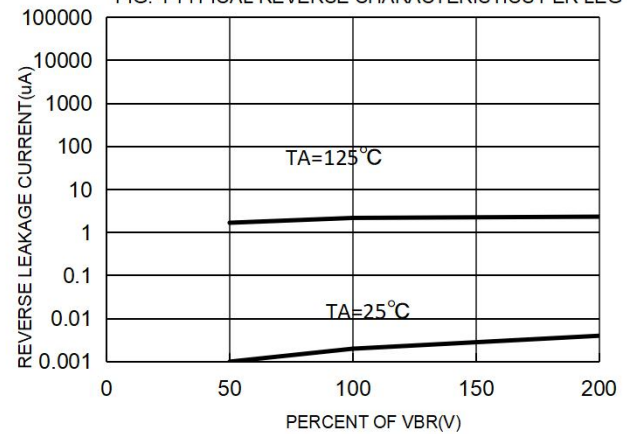


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



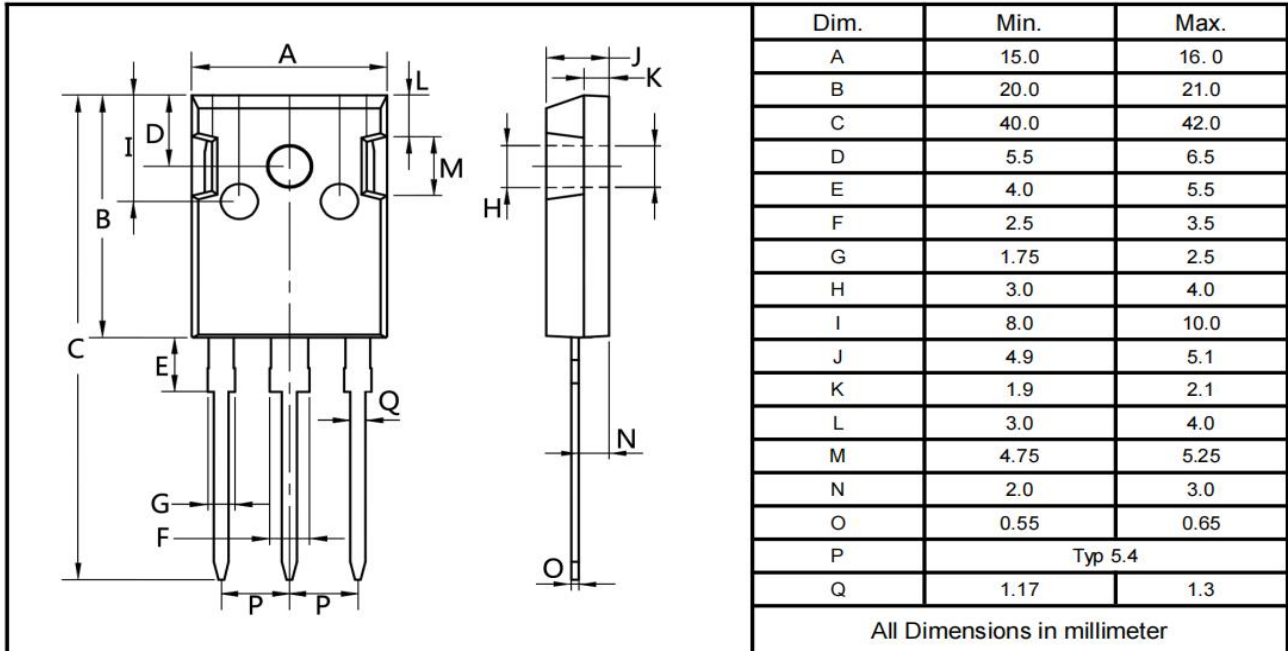


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### ULTRAFAST RECOVERY RECTIFIERS

Package Outline Dimensions millimeters

#### TO-247



#### TO-247S

