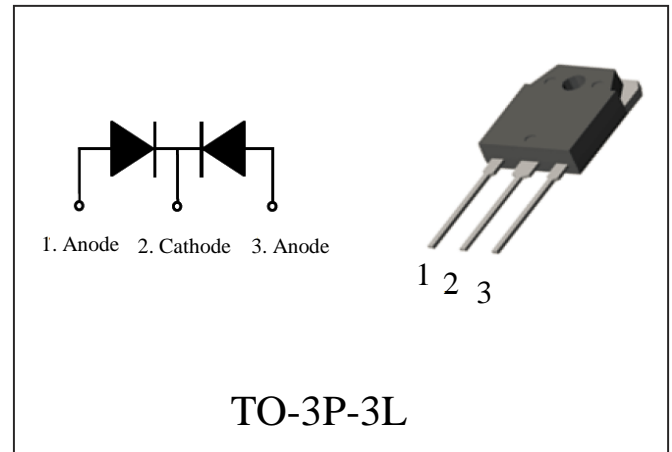


### FEATURES

- Guard ring for transient protection
- Low power loss, High efficiency
- High current capability, Low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



Ordering Information		
Type NO.	Marking	Package Code
MPRT60U30B	MP60U30B	TO-3P-3L

Absolute Maximum Ratings $T_C = 25^\circ\text{C}$ , unless otherwise noted			
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	300	V
DC Blocking Voltage	$V_R$	300	V
Average Forward Rectified Current @ $T_c=135^\circ\text{C}$	$I_{F(AV)}$	30*2	A
Non-repetitive Peak Surge Current 60Hz Single Half-Sine Wave	$I_{FSM}$	300	A
Operating Junction and Storage Temperature Range	$T_J, T_{stg}$	175, -55~+175	$^\circ\text{C}$

Thermal Resistance			
Parameter	Symbol	Value(Max)	Unit
Thermal Resistance, Junction-to-Case	$R_{thJC}$	0.53	$^\circ\text{C}/\text{W}$

Specifications (per diode) $T_J = 25^\circ\text{C}$ , unless otherwise noted						
Symbol	Parameter		Min.	Typ.	Max.	Unit
$V_F$	$I_F=30\text{A}$	$T_c=25^\circ\text{C}$	-	0.95	1.2	V
	$I_F=30\text{A}$	$T_c=125^\circ\text{C}$	-	0.80	1.05	V
$I_{RM}$	$V_R=300\text{V}$	$T_c=25^\circ\text{C}$	-	-	4	$\mu\text{A}$
	$V_R=300\text{V}$	$T_c=125^\circ\text{C}$	-	40	-	$\mu\text{A}$
$t_{TR}$	$I_F=1\text{A}$ , $di/dt=200\text{A}/\mu\text{s}$ , $V_R=30\text{V}$		$T_c=25^\circ\text{C}$	-	28	ns

### Typical Characteristics $T_J = 25^\circ\text{C}$ , unless otherwise noted

Figure 1. Typical Forward Voltage Drop

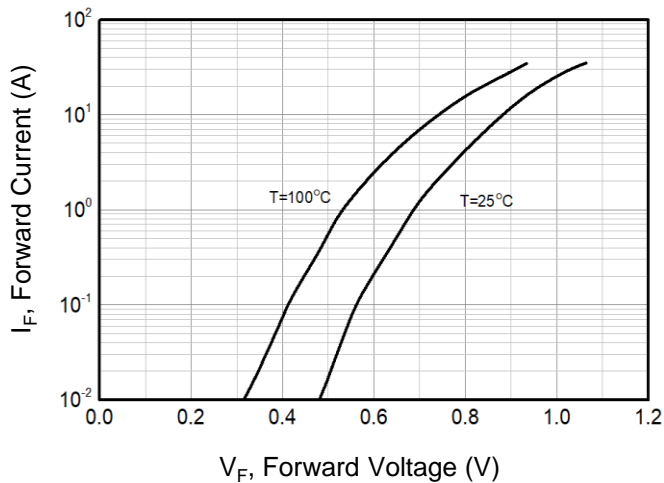


Figure 2. Typical Reverse Current

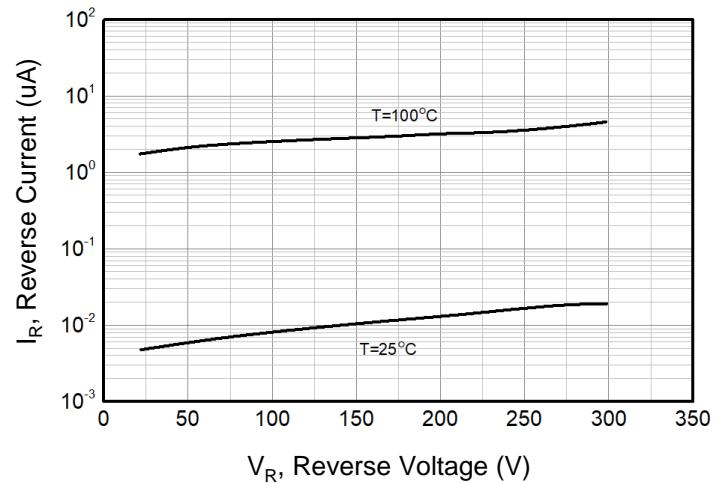


Figure 3. Typical Junction Capacitance

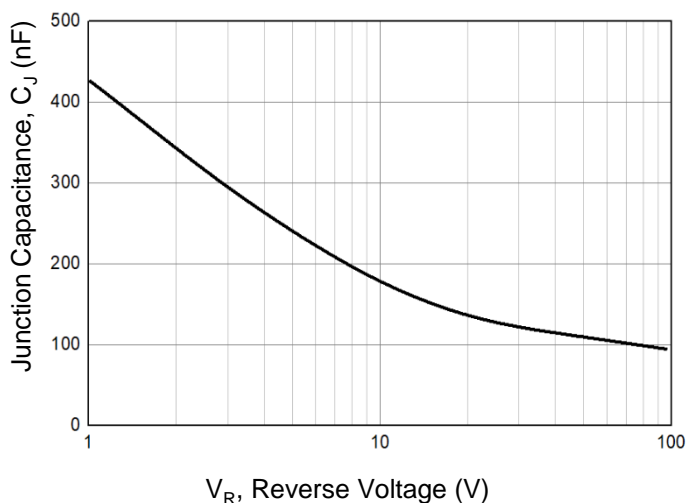
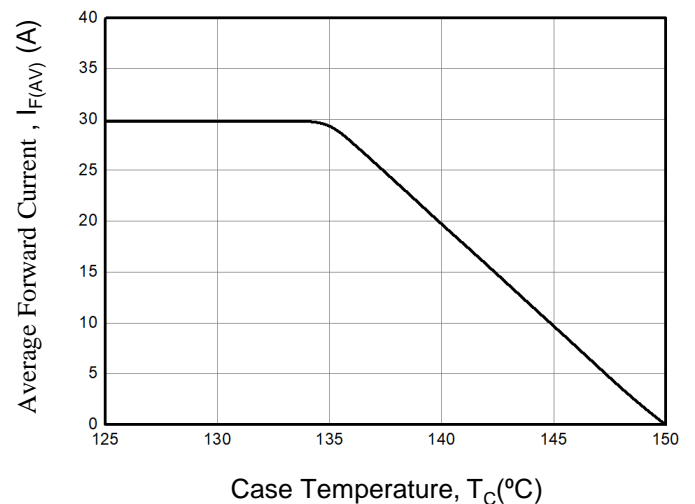


Figure 4. Power Derating



**Outline Dimension**

Unit: mm

