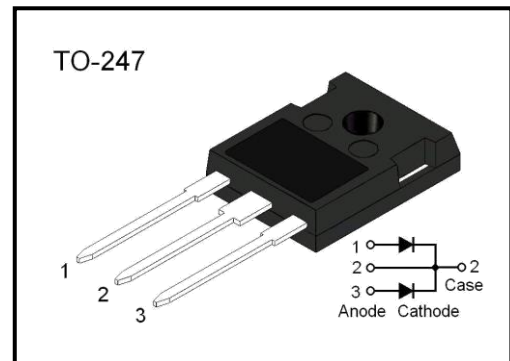


**TO-247 Ultra Fast Recovery Rectifiers****Application**

- Snubber diode
- Switch power supply
- UPS
- Antiparalle Diode for high frequency switching devices

Features

- Ultrafast Recovery Time
- Low Recovery Loss
- Low Forward Voltage
- Low Leakage Current

**Absolute Maximum Rating** ($T_a=25^{\circ}\text{C}$)

Rating		Symbol	Value	Unit
Peak repetitive reverse voltage		V_{RRM}	400	V
Working peak reverse voltage		V_{RWM}	400	V
DC blocking voltage		V_R	400	V
Average rectified output current	Per Leg	$I_{F(AV)}$	15	A
	Total		30	
Non-repetitive peak forward surge current 8.3ms half sine wave		I_{FSM}	250	A
Junction temperature		T_j	150	$^{\circ}\text{C}$
Storage temperature		T_{stg}	-55 ~ +150	$^{\circ}\text{C}$

Thermal characteristics (Per Leg)

Rating		Symbol	Value	Unit
Maximum thermal resistance	Junction to case	$R_{\theta JC}$	1.5	$^{\circ}\text{C/W}$
	Junction to ambient	$R_{\theta JA}$	40	

Electrical Characteristics (Per Leg unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 15\text{ A}$	$T_a=25^{\circ}\text{C}$		1.2	1.6	V
			$T_a=125^{\circ}\text{C}$		1.0	1.2	
Reverse current	I_R	$V_R = 600\text{ V}$	$T_a=25^{\circ}\text{C}$			1	μA
			$T_a=125^{\circ}\text{C}$			1	mA
Reverse recovery time	t_{rr}	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, I_{rr} = 0.25\text{ A}$				60	ns

Typical Characteristics
MUR3040PT

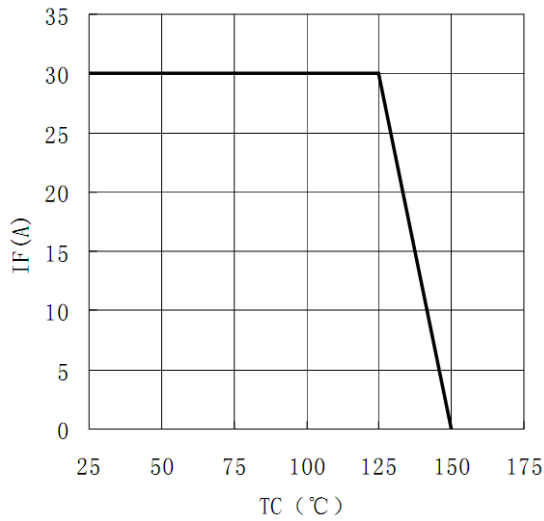


Figure 1. Forward Current derating Curve

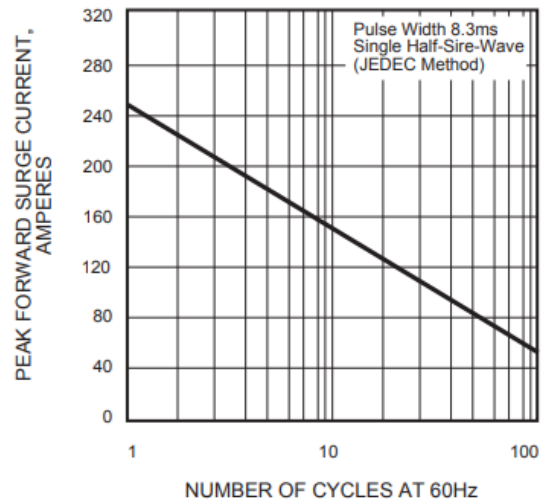


Figure 2. Peak Forward surge Current

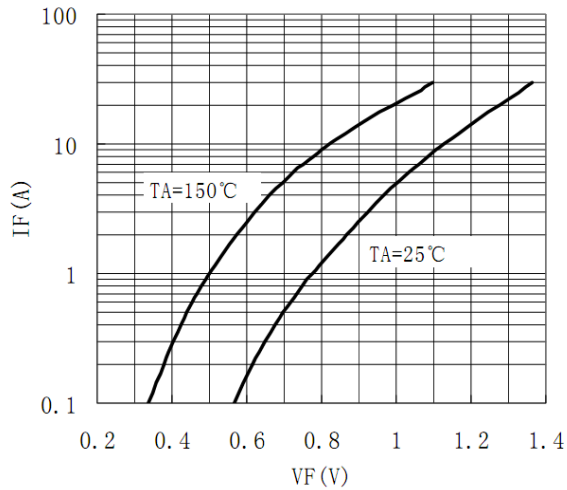


Figure 3. Forward Characteristics

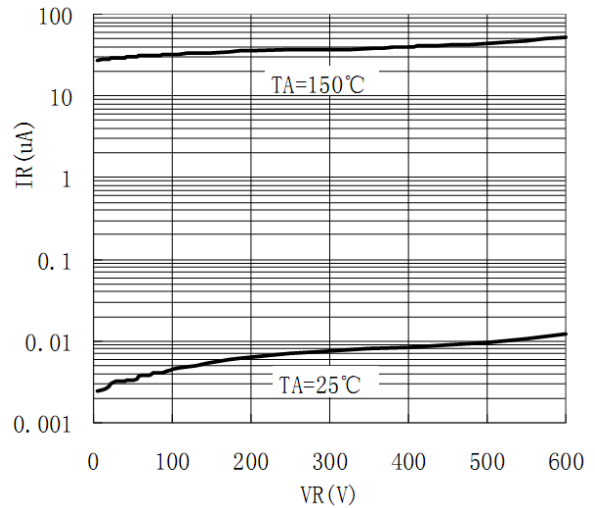


Figure 4. Reverse Characteristics

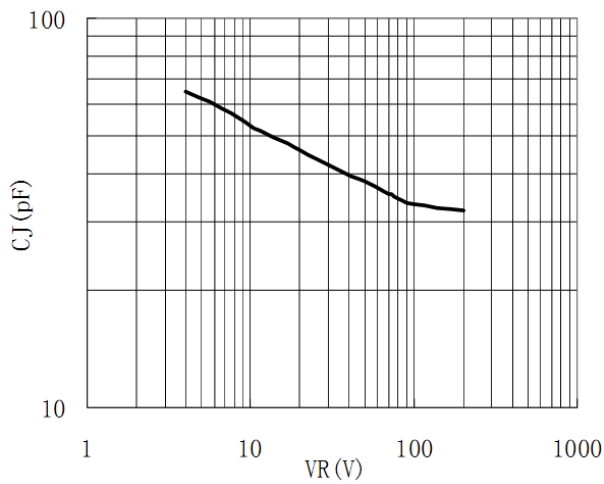


Figure 5. Junction Characteristics

Package Dimensions

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.90	5.10	0.193	0.201
A1	1.90	2.10	0.075	0.083
A2	2.20	2.40	0.087	0.094
b	1.07	1.33	0.042	0.052
b1	1.90	2.30	0.075	0.091
b2	2.90	3.30	0.114	0.130
c	0.55	0.68	0.022	0.027
D	15.75	16.05	0.620	0.632
D1	11.60	12.00	0.457	0.472
E	20.20	20.80	0.795	0.819
e	5.45 (BSC)		0.215 (BSC)	
e1	10.90 (BSC)		0.429 (BSC)	
F	6.05	6.25	0.238	0.246
L	20.10	20.40	0.791	0.803
L1	4.05	4.35	0.159	0.171
Φ	3.50	3.80	0.138	0.150