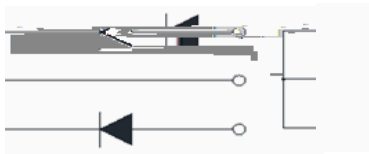
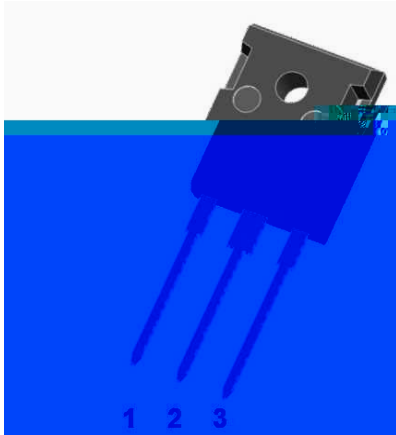


## Ultra-Fast Recovery Diodes 30A\*2 FRED



### Features

Adopt FRED chip

### Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection

### Mechanical Data

**Package:** TO-247AB

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

**Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

**Polarity:** As marked

### Maximum Ratings (T<sub>j</sub>=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR6040PT
Device marking code			MUR6040PT
Repetitive Peak Reverse Voltage	VRRM	V	400
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>c</sub> (FIG.1)	I <sub>O</sub>	A	60
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T <sub>j</sub> =25	I <sub>FSM</sub>	A	300
Current Squared Time @1ms t 8.3ms T <sub>j</sub> =25	I <sup>2</sup> t	A <sup>2</sup> s	373
Single Pulse Avalanche Energy @ T <sub>p</sub> =40uS, T <sub>j</sub> =25 ,L=15mH	EAS	mJ	485
Storage Temperature	T <sub>stg</sub>		-55 ~ +175
Junction Temperature	T <sub>j</sub>		-55 ~ +175
Typical Junction capacitance @4V,1MHz	C <sub>j</sub>	pF	295

# MUR6040PT

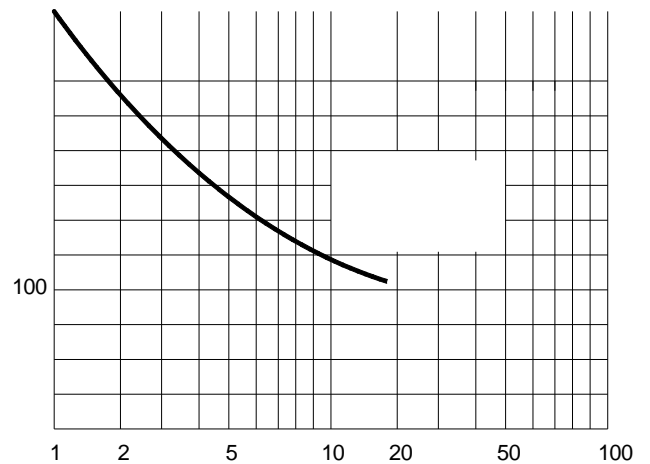
## Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	$V_{FM}$	V	$I_{FM}=30.0A$ @ $T_j=25$	-	1.2	1.4
			$I_{FM}=30.0A$ @ $T_j=150$		0.96	1.2
DC reverse current at rated DC blocking voltage per diode	$I_{RRM1}$	uA	$V_{RM}=V_{RRM}$ $T_j=25$	-	-	5.0
	$I_{RRM2}$		$V_{RM}=V_{RRM}$ $T_j=150$	-	46	200
Reverse Recovery Time	$T_{rr}$	ns	$I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$ $T_j=25$	-	36	50
			$T_j=25$	-	45.5	-
			$T_j=125$	-	85.5	-
Peak recovery current	$I_{RRM}$	A	$T_j=25$	-	4.0	-
			$T_j=125$			
Reverse recovery charge	$Q_{rr}$	nC	$T_j=25$	-	95.5	-
			$T_j=125$	-	410.5	-

## Thermal Characteristics $T_j=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MUR6040PT	
Thermal Resistance	Between junction and case	R J-C	$\text{mW}$	1.0
	Between junction and Air	R J-A	$\text{mW}$	50

## Characteristics(Typical)







# MUR6040PT

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