

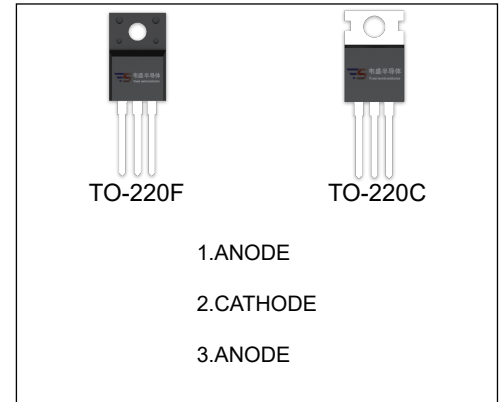
# MUR1040CT、MURF1040CT SUPER FAST

## MAIN CHARACTERISTICS

$I_O$	10A
$V_{RRM}$	400 V
$T_j$	150 °C
$V_{F(typ)}$	1.1V (@ $T_j=125^{\circ}C$ )

## FEATURES

- Ultrafast 35ns Recovery Times
- High Voltage Capability to 400V
- Low Reverse Leakage Current



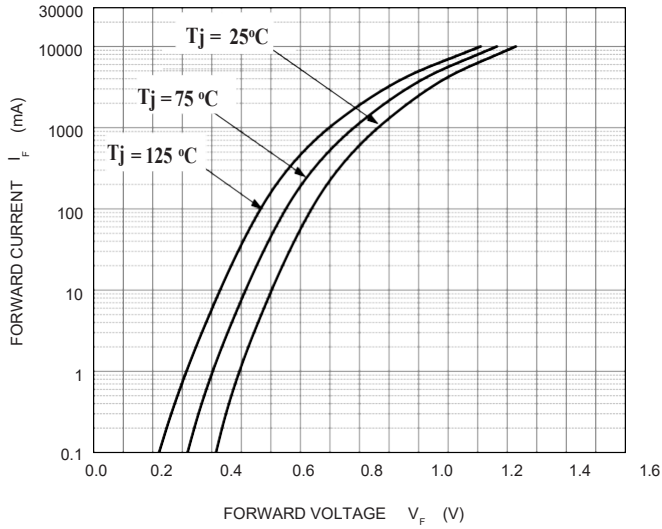
## MAXIMUM RATINGS ( $T_a=25^{\circ}C$ unless otherwise noted )

Symbol	Parameter	MUR		Unit
		1040CT	F1040CT	
$V_{RRM}$	Peak repetitive reverse voltage	400		V
$V_{RWM}$	Working peak reverse voltage			
$V_R$	DC blocking voltage			
$V_{R(RMS)}$	RMS reverse voltage	280		V
$I_O$	Average rectified output current@ Per leg	5		A
	Average rectified output current@ Total device	10		A
$I_{FSM}$	Non-Repetitive peak forward surge current 8.3ms half sine wave	70		A
$P_D$	Power dissipation	2		W
$R_{\theta JA}$	Thermal resistance from junction to ambient	62.5		$^{\circ}C/W$
$T_j$	Operating Junction Temperature Range	-55 ~ +150		$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55 ~ +150		$^{\circ}C$

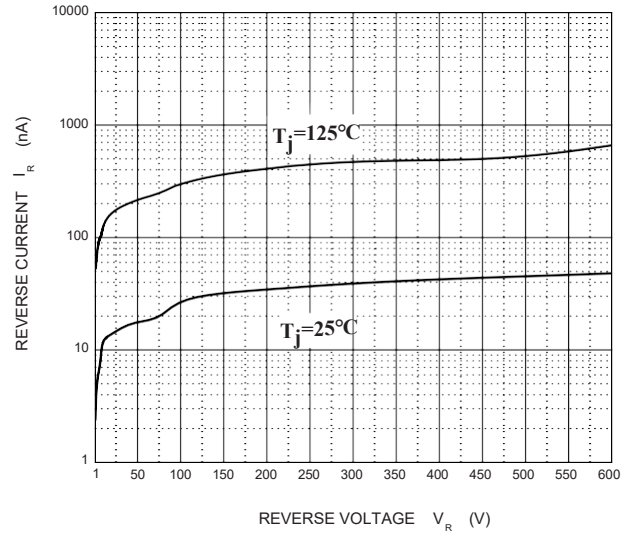
## ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu A$	400			V
Reverse current	$I_R$	$V_R=400V$	$T_j=25^{\circ}C$	0.2	1	$\mu A$
			$T_j=125^{\circ}C$	1.0		$\mu A$
Forward voltage	$V_F$	$I_F=5.0A$	$T_j=25^{\circ}C$	1.25	1.4	V
			$T_j=125^{\circ}C$	1.1		V
Typical total capacitance	$C_{tot}$	$V_R=4.0V, f=1MHz$		16		pF
Reverse recovery time	$t_{rr}$	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$			35	ns

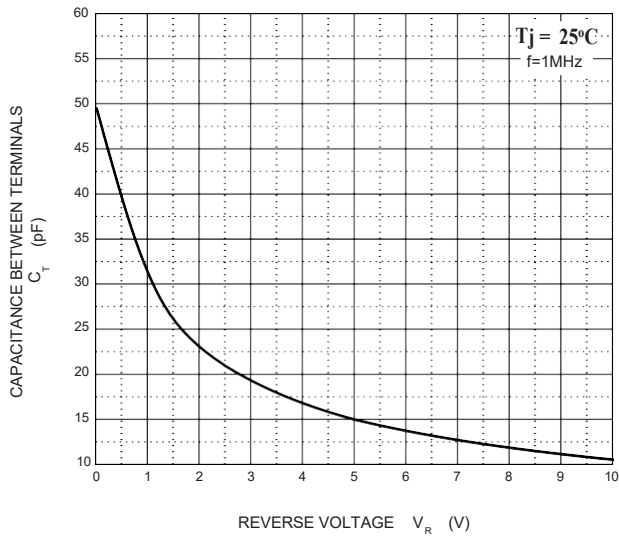
**Forward Characteristics**



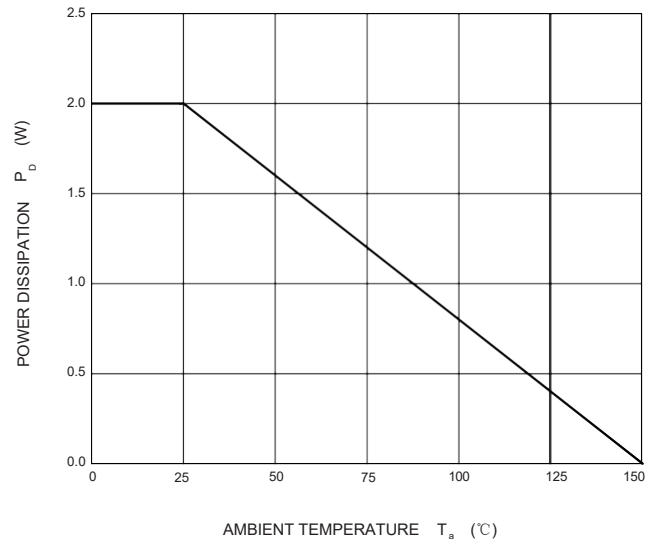
**Reverse Characteristics**



**Capacitance Characteristics**



**Power Derating Curve**



**Diagram of circuit and Testing wave form of reverse recovery time**

