

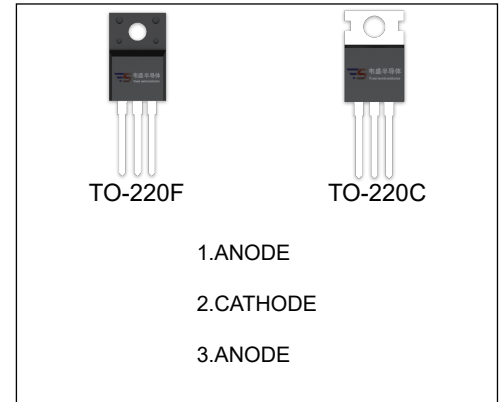
MUR1040CT、MURF1040CT SUPER FAST

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



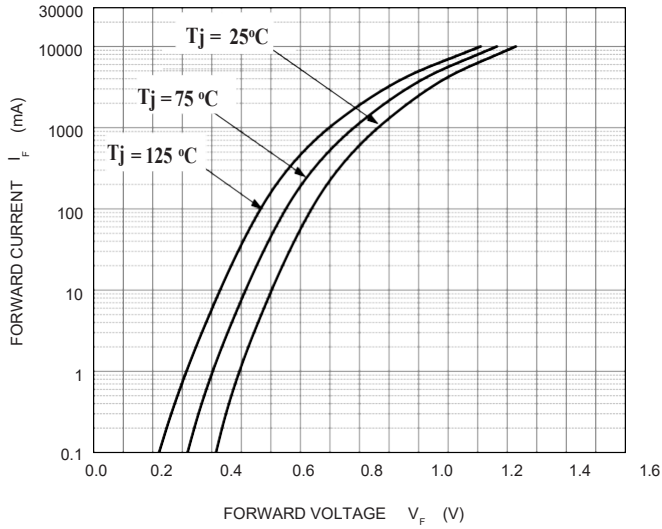
MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

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		$^{\circ}C$

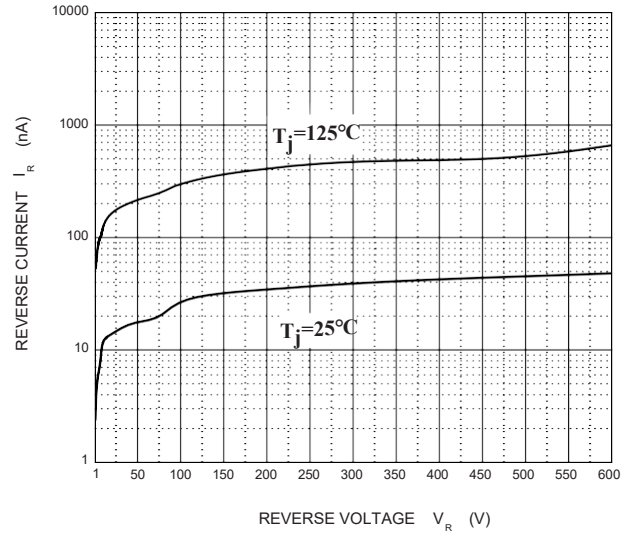
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$ unless otherwise specified)

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	μA
			$T_j=125^{\circ}C$	1.0		μA
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

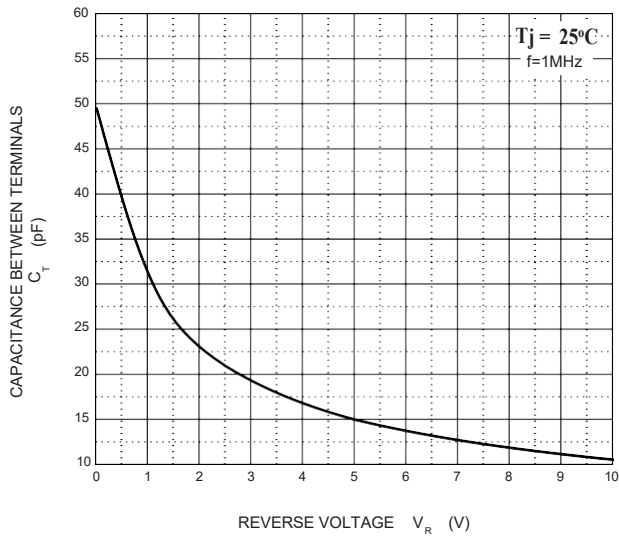
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

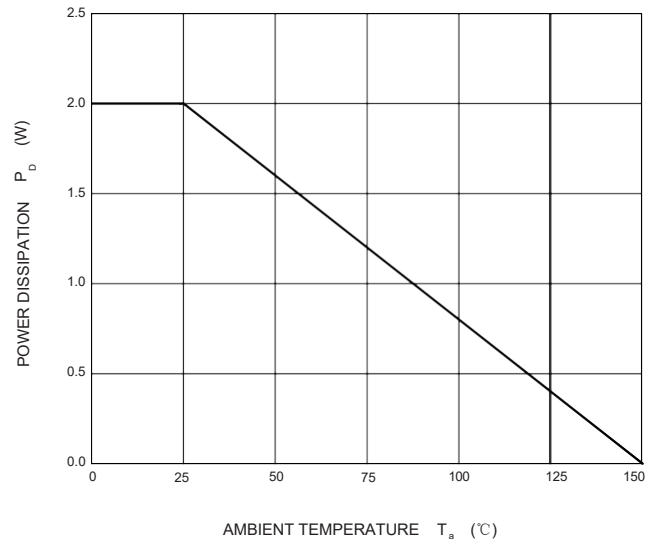


Diagram of circuit and Testing wave form of reverse recovery time

