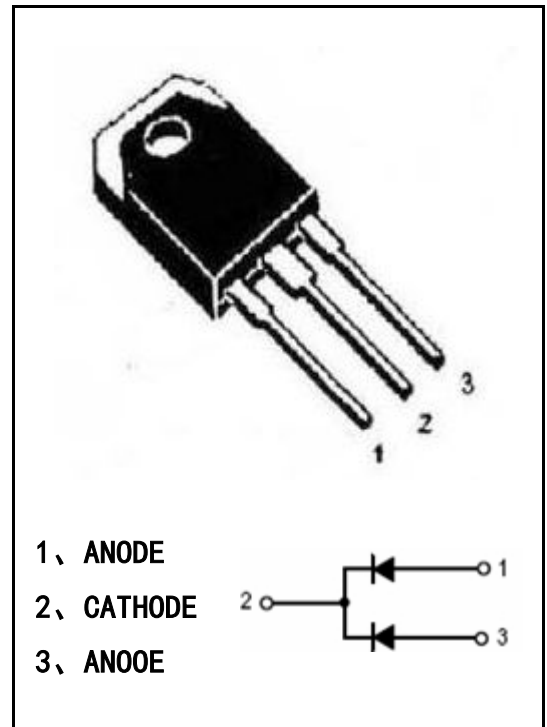


**PRODUCT FEATURES**

- Ultrafast Recovery Time
- Soft Recovery Characteristics
- Low Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Leakage Current

**APPLICATIONS**

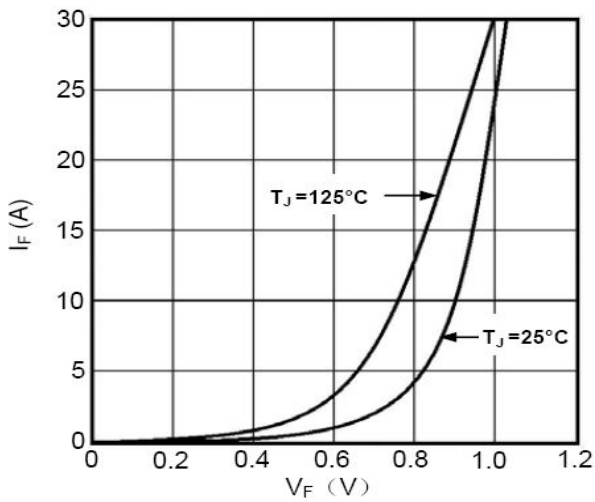
- Freewheeling, Snubber, Clamp
- Inversion Welder
- PFC
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- UPS


**ABSOLUTE MAXIMUM RATINGS**
 $T_c=25^{\circ}\text{C}$  unless otherwise specified

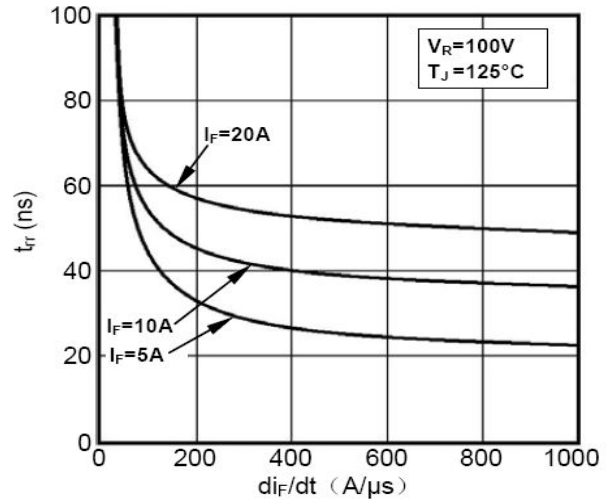
Symbol	Parameter	Test Conditions	Max.	Unit
$V_R$	D.C. Reverse Voltage		200	V
$V_{RRM}$	Repetitive Reverse Voltage		200	V
$I_{F(AV)}$ (per leg)	Average Forward Current	$T_c=110^{\circ}\text{C}$	10	A
$I_{F(AV)}$ (Total)			20	
$I_{FSM}$	Non-Repetitive Surge Forward Current	T=10ms, Sine	150	A
$T_J$	Junction Temperature		-55 to +150	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range		-55 to +150	$^{\circ}\text{C}$

**ELECTRICAL AND THERMAL CHARACTERISTICS**
 $T_c=25^{\circ}\text{C}$  unless otherwise specified

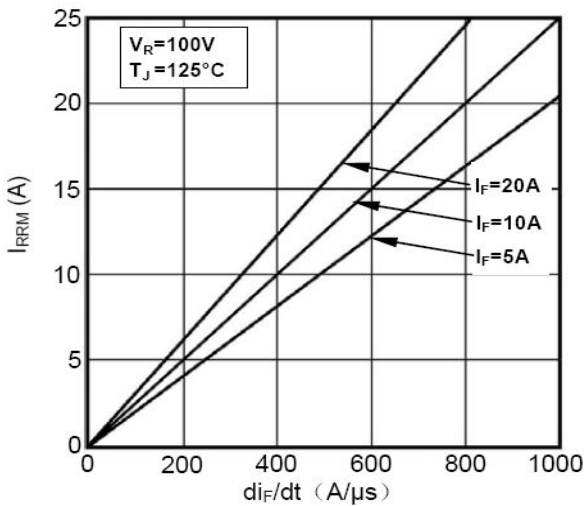
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
$I_{RM}$	Reverse Leakage Current	$V_R=200\text{V}, T_J=25^{\circ}\text{C}$	--	--	25	$\mu\text{A}$	
		$V_R=200\text{V}, T_J=125^{\circ}\text{C}$	--	--	100	$\mu\text{A}$	
$V_F$	Forward Voltage	$I_F=10\text{A}, T_J=25^{\circ}\text{C}$	--	0.95	1.1	V	
		$I_F=10\text{A}, T_J=125^{\circ}\text{C}$	--	--	0.95	V	
$t_{rr}$	Reverse Recovery Time ( $I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ )		18	20	24	ns	
$t_{rr}$	Reverse Recovery Time	$I_F=10\text{A}$ $V_R=100\text{V}$ $di_F/dt=-200\text{A}/\mu\text{s}$	$T_J=25^{\circ}\text{C}$	--	35	--	ns
$t_{rr}$	Reverse Recovery Time		$T_J=125^{\circ}\text{C}$	--	48	--	ns
$I_{RRM}$	Max. Reverse Recovery Current		$T_J=125^{\circ}\text{C}$	--	6	--	A



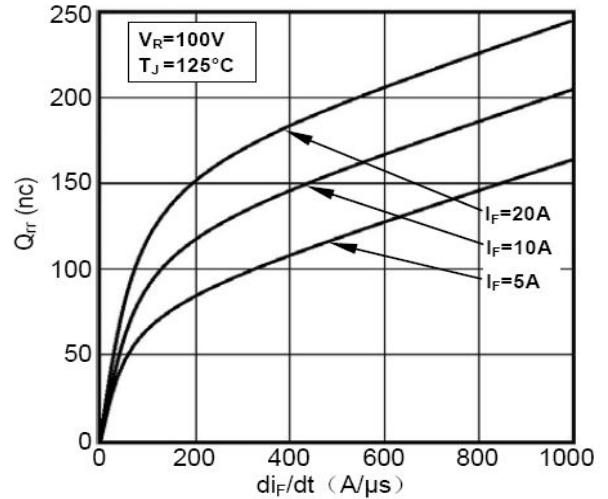
**Forward Voltage Drop vs Forward Current**



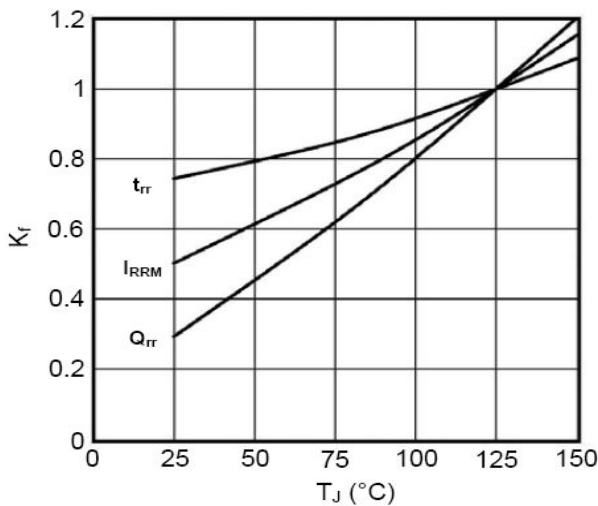
**Reverse Recovery Time vs diF/dt**



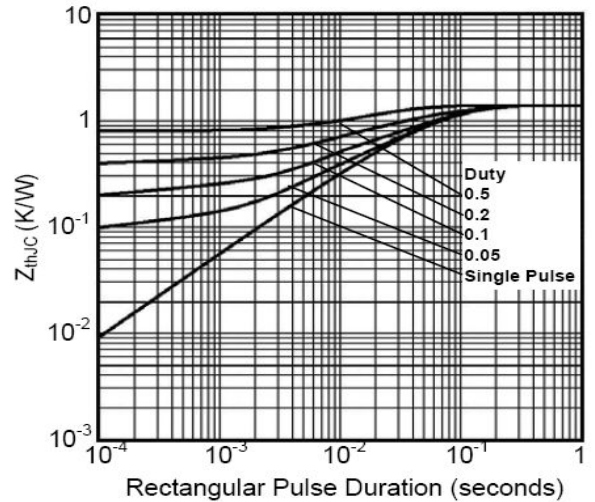
**Reverse Recovery Current vs diF/dt**



**Reverse Recovery Charge vs diF/dt**



**Dynamic Parameters vs Junction Temperature**



**Transient Thermal Impedance**

**TO-3P MECHANICAL DATA**
**UNIT: mm**

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	15.2		15.8	J	3.3		3.9
B	12.2		12.8	K	1.8		2.2
C	9.7		10.3	L	2.8		3.2
D	3	3.2	3.4	M	0.8		1.2
E	4.7		5.3	N	5.2	5.45	5.7
F	19		19.6	O	4.6		5.2
G	17.8		18.4	P	1.8		2.3
H	13.6		14.3	Q	2.6		3.3
I	19.5		20.5	R	0.5		0.7

