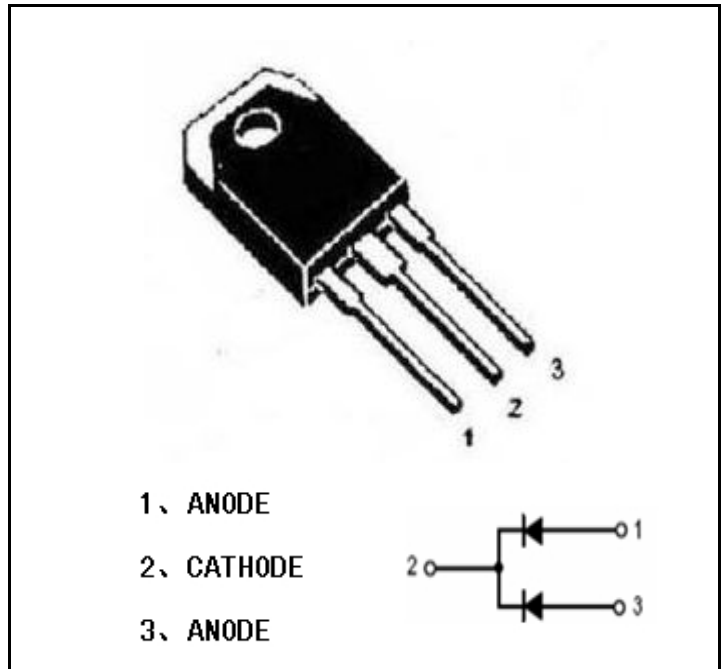


**PRODUCT FEATURES**

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

**APPLICATIONS**

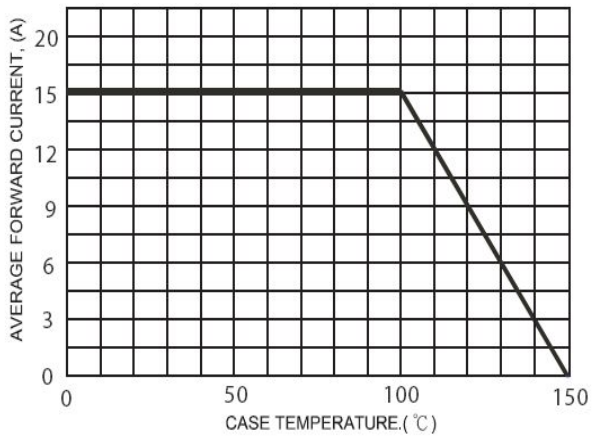
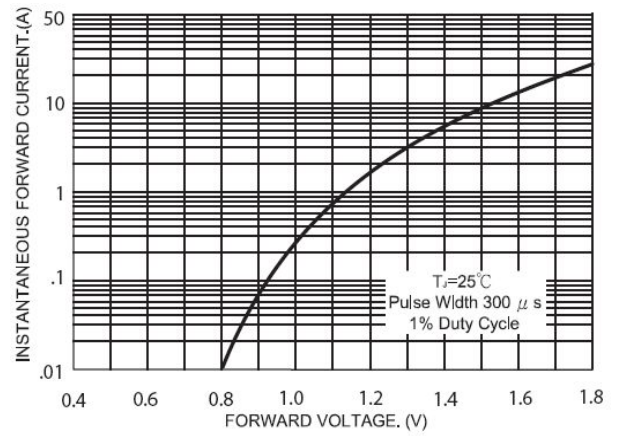
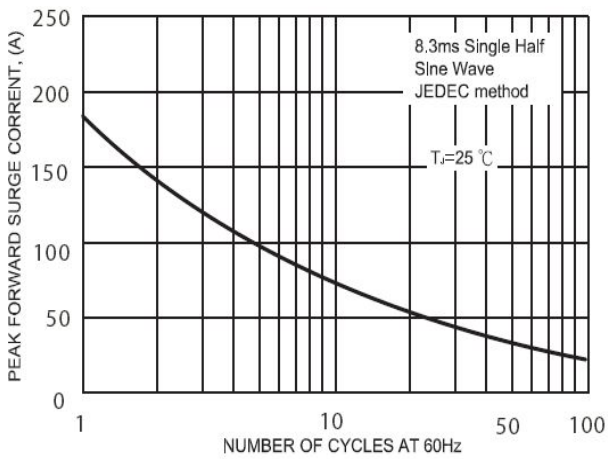
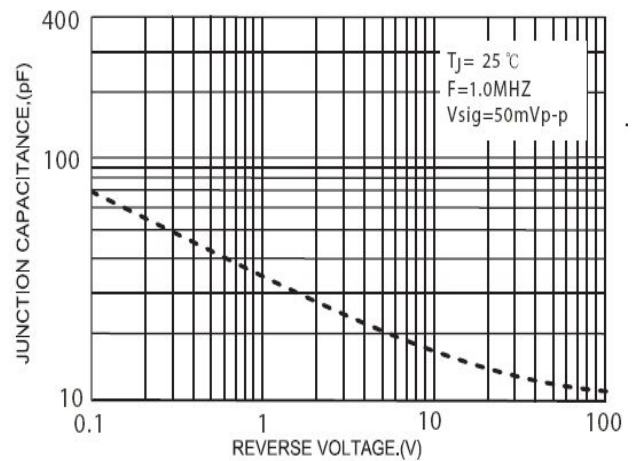
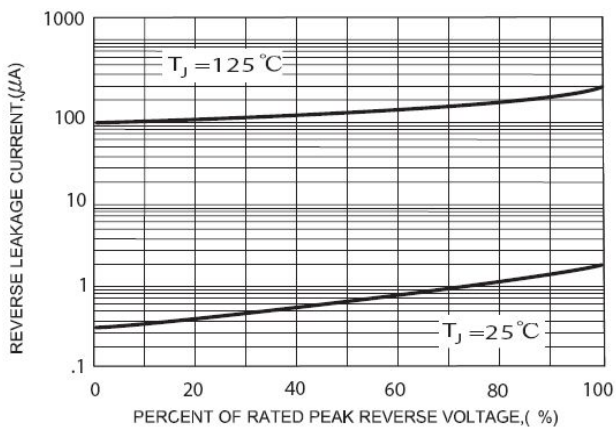
- Freewheeling, Snubber, Clamp
- Inversion Welder
- PFC
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- UPS


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

Symbol	Parameter	Test Conditions	Max.	Unit
$V_R$	D.C. Reverse Voltage		600	V
$V_{RRM}$	Repetitive Reverse Voltage		600	V
$I_{F(AV)}$ (per leg)	Average Forward Current	$T_c=90^{\circ}\text{C}$ , Duty=0.5	15	A
$I_{F(AV)}$ (Total)			30	A
$I_{FM}$	Peak Repetitive Forward Current	$T_c=110^{\circ}\text{C}$ , Duty=0.5	25	A
$I_{FSM}$	Non-Repetitive Surge Forward Current	$T=45^{\circ}\text{C}$ , 8.3ms,	110	A
$T_J$	Junction Temperature		-55 to +175	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range		-55 to +175	$^{\circ}\text{C}$

**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	$V_R=600\text{V}$ , $T_J=25^{\circ}\text{C}$	--	--	20	$\mu\text{A}$	
		$V_R=600\text{V}$ , $T_J=125^{\circ}\text{C}$	--	--	250	$\mu\text{A}$	
$V_F$	Forward Voltage	$I_F=15\text{A}$ , $T_J=25^{\circ}\text{C}$	--	1.4	1.7	V	
		$I_F=15\text{A}$ , $T_J=125^{\circ}\text{C}$	--	1.2	--	V	
$t_{rr}$	Reverse Recovery Time ( $I_F=1\text{A}$ , $V_R=30\text{V}$ , $di_F/dt=-200\text{A}/\mu\text{s}$ )		--	30	--	ns	
$t_{rr}$	Reverse Recovery Time	$I_F=15\text{A}$ $V_R=400\text{V}$ $di_F/dt=-200\text{A}/\mu\text{s}$	$T_J=25^{\circ}\text{C}$	--	40	--	ns
$t_{rr}$	Reverse Recovery Time		$T_J=125^{\circ}\text{C}$	--	80	--	ns
$Q_{rr}$	Reverse Recovery Charge		$T_J=125^{\circ}\text{C}$	--	120	--	nC
$I_{RRM}$	Max. Reverse Recovery Current		$T_J=125^{\circ}\text{C}$	--	3	--	A


**TYPICAL FORWARD CURRENT DERATING CURVE**

**TYPICAL FORWARD CHARACTERISTICS**

**MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

**TYPICAL JUNCTION CAPACITANCE**

**TYPICAL REVERSE CHARACTERISTICS**

**TO-3P MECHANICAL DATA**

		UNIT: mm	
SYMBOL	NOM	SYMBOL	NOM
A	15.5	J	3.6
B	12.5	K	2.0
C	10.0	L	3.0
D	3.2	M	1.0
E	5.0	N	5.45
F	19.3	O	4.9
G	18.1	P	2.0
H	13.9	Q	2.9
I	20.0	R	0.6

