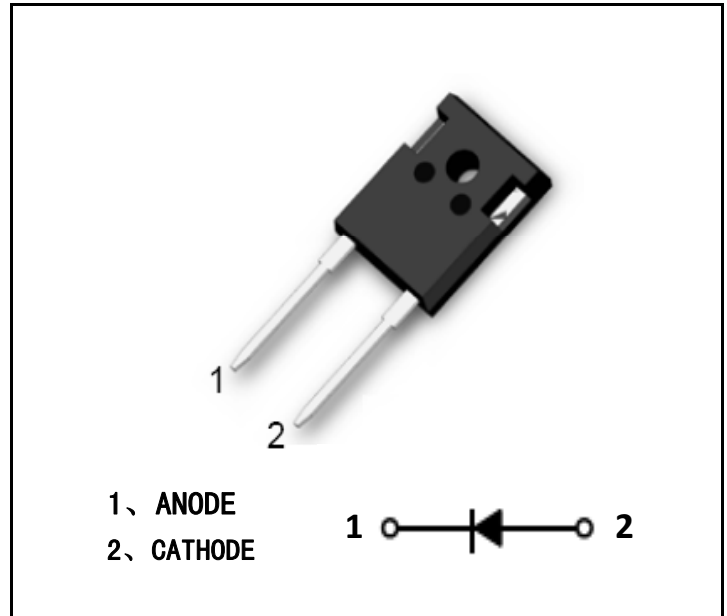


PRODUCT FEATURES

- 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

TC=25° C unless otherwise specified

Symbol	Parameter	Test Conditions	Value	Unit
V_R	D.C. Reverse Voltage		600	V
V_{RRM}	Repetitive Reverse Voltage		600	V
$I_{F(AV)}$	Average Forward Current	$T_C=1100^{\circ}C$, Duty=0.5	60	A
I_{FM}	Peak Repetitive Forward Current	$T_C=1100^{\circ}C$, Duty=0.5	90	A
I_{FSM}	Non-Repetitive Surge Forward Current	$T_J=45^{\circ}C$, 8.3ms	600	A
T_J	Junction Temperature		-55 to +150	$^{\circ}C$
T_{STG}	Storage Temperature Range		-55 to +150	$^{\circ}C$

ELECTRICAL AND THERMAL CHARACTERISTICS

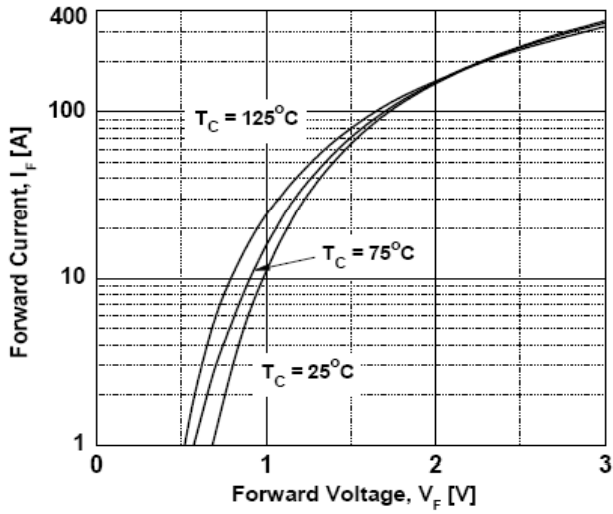
TC=25° C unless otherwise specified

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
I_{RM}	Reverse Leakage Current	$V_R=600V$, $T_J=25^{\circ}C$	--	--	250	μA	
		$V_R=600V$, $T_J=125^{\circ}C$	--	--	500	μA	
V_F	Forward Voltage	$I_F=60A$, $T_J=25^{\circ}C$	--	1.3	1.8	V	
		$I_F=60A$, $T_J=125^{\circ}C$	--	1.1	--	V	
t_{rr}	Reverse Recovery Time ($I_F=1A$, $V_R=30V$, $di_F/dt=-200A/\mu s$)		--	40	--	ns	
t_{rr}	Reverse Recovery Time	$I_F=60A$ $V_R=300V$ $di_F/dt=-200A/\mu s$	$T_J=25^{\circ}C$	--	85	--	ns
t_{rr}	Reverse Recovery Time		$T_J=125^{\circ}C$	--	220	--	ns
I_{RRM}	Max. Reverse Recovery Current		$T_J=25^{\circ}C$	--	11	--	A
I_{RRM}	Max. Reverse Recovery Current		$T_J=100^{\circ}C$	--	22	--	A

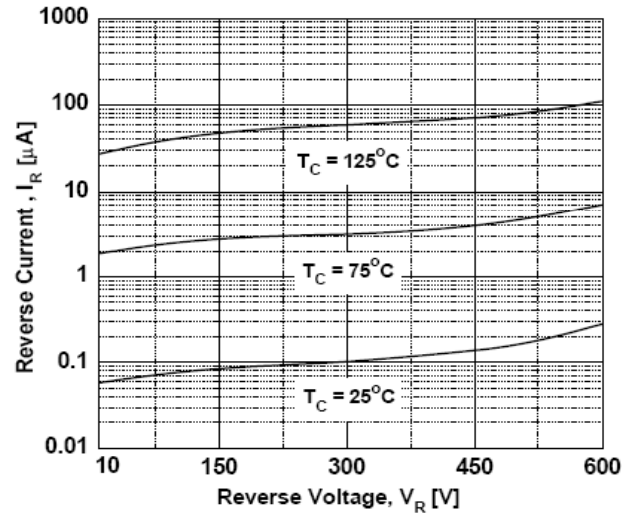
THERMAL CHARACTERISTICS

Rating	Symbol	Value	Unit
Maximum Thermal Resistance	θ_{JC}	0.5	$^{\circ}C/W$

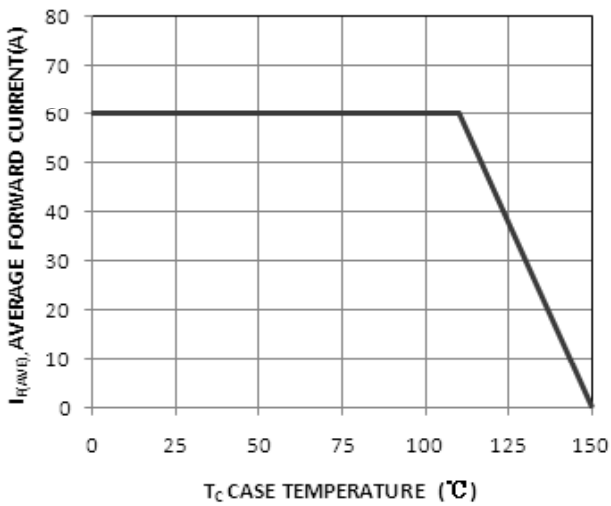
Characteristics Curves



Typical Forward Voltage Per Diode



Typical Reverse Current Per Diode



Average Forward Current vs. Case Temperature Per Diode

TO-247 MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4.60		5.15	b1	1.86		2.26
b2		1.20		C		0.50	
D	19.00		21.00	E	15.45		15.75
E1	12.00		13.06	e		5.45	
L	14.00		14.60	L1	5.20		5.88
L2	24.00		24.40	L3	10.00		10.60
P		3.50		Q	2.30		2.70
A1	1.30		1.60				

