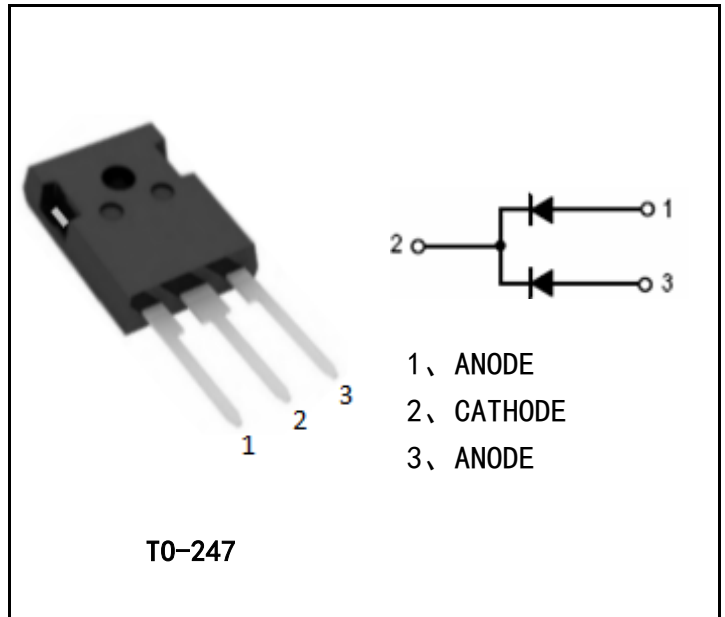


**PRODUCT FEATURES**

- 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

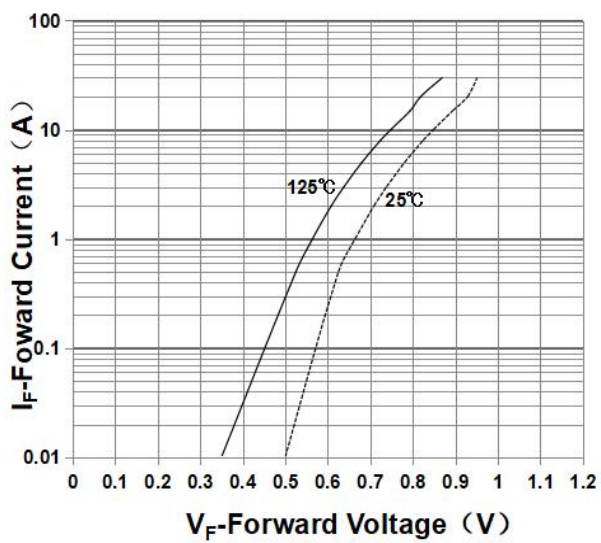
Symbol	Parameter	Test Conditions	Max.	Unit
V_R	D.C. Reverse Voltage		300	V
V_{RRM}	Repetitive Reverse Voltage		300	V
$I_{F(AV)}$ (per leg)	Average Forward Current	$T_C=110^{\circ}\text{C}$, Duty=0.5	30	A
$I_{F(AV)}$ (Total)			60	A
I_{FSM}	Non-Repetitive Surge Forward Current	$T=25^{\circ}\text{C}$, 8.3ms,	300	A
T_J	Junction Temperature		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

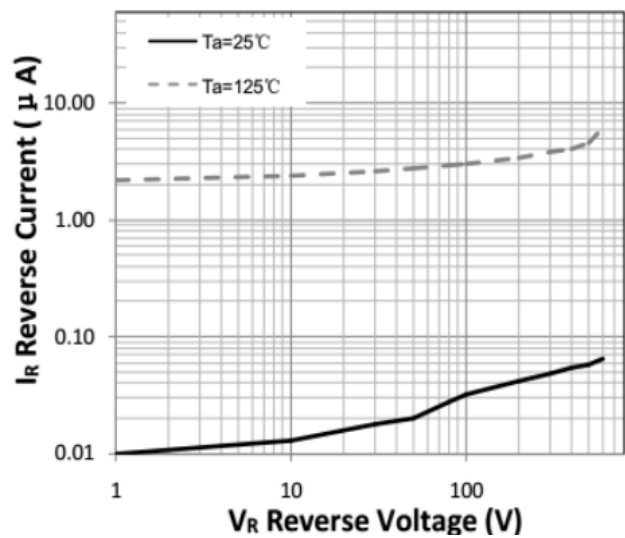
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	$V_R=300\text{V}$, $T_J=25^{\circ}\text{C}$	--	--	1	μA
		$V_R=300\text{V}$, $T_J=125^{\circ}\text{C}$	--	--	100	μA
V_F	Forward Voltage	$I_F=30\text{A}$, $T_J=25^{\circ}\text{C}$	--	0.95	1.3	V
		$I_F=30\text{A}$, $T_J=125^{\circ}\text{C}$	--	0.87	--	V
t_{rr}	Reverse Recovery Time ($I_F=1\text{A}$, $V_R=50\text{V}$, $di_F/dt=-100\text{A}/\mu\text{s}$)		--	26	--	ns
t_{rr}	Reverse Recovery Time	$I_F=30\text{A}$ $V_R=200\text{V}$ $di_F/dt=-200\text{A}/\mu\text{s}$	$T_J=25^{\circ}\text{C}$	--	44	ns
t_{rr}	Reverse Recovery Time		$T_J=125^{\circ}\text{C}$	--	65	ns
Q_{rr}	Reverse Recovery Charge		$T_J=125^{\circ}\text{C}$	--	338	nC
I_{RRM}	Max. Reverse Recovery Current		$T_J=125^{\circ}\text{C}$	--	10.4	A

THERMAL CHARACTERISTICS

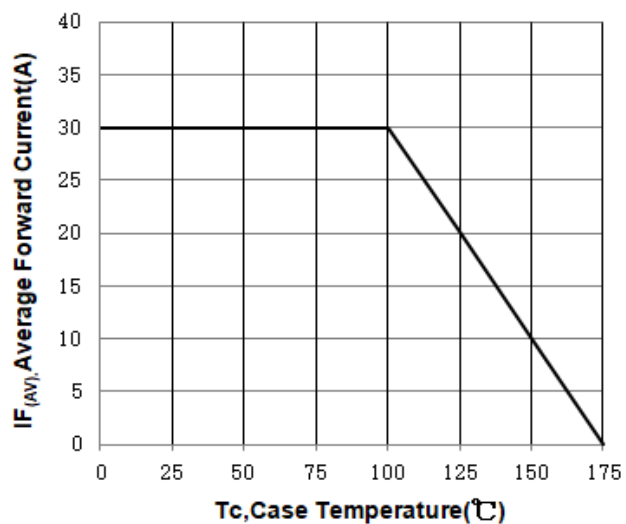
Rating	Symbol	Value		Unit
Maximum Thermal Resistance	θ_{JC}	T0-247	1	$^{\circ}\text{C}/\text{W}$



Typical Forward Voltage Per Diode



Typical Reverse Current Per Diode



Current Derating Per Diode



T0-247 MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4.60		5.15	A1	1.30		1.60
b	2.86		3.26	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
ΦP		3.50		Q	2.30		2.70

