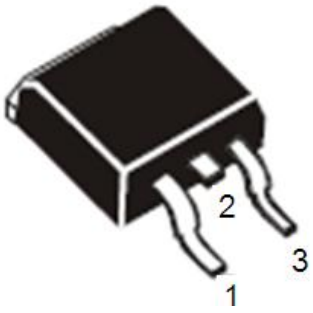
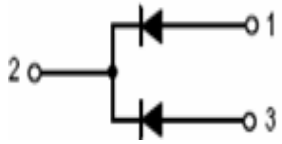
PRODUCT FEATURES

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



TO-263

1、ANODE
2、CATHODE
3、ANOOE



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		400	V
V_{RRM}	Repetitive Reverse Voltage		400	V
$I_{F(AV)}$(per leg)	Average Forward Current	T_C=110°C, Duty=0.5	5	A
$IF_{(AV)}$(Totel)			10	
I_{FM}	Peak Repetitive Forward Current	TC=110°C, Duty=0.5	10	A
I_{FSM}	Non-Repetitive Surge Forward Current	T=45°C, 8.3ms	75	A
T_J	Junction Temperature		-55 to +150	°C
T_{STG}	Storage Temperature Range		-55 to +150	°C

ELECTRICAL AND THERMAL CHARACTERISTICS

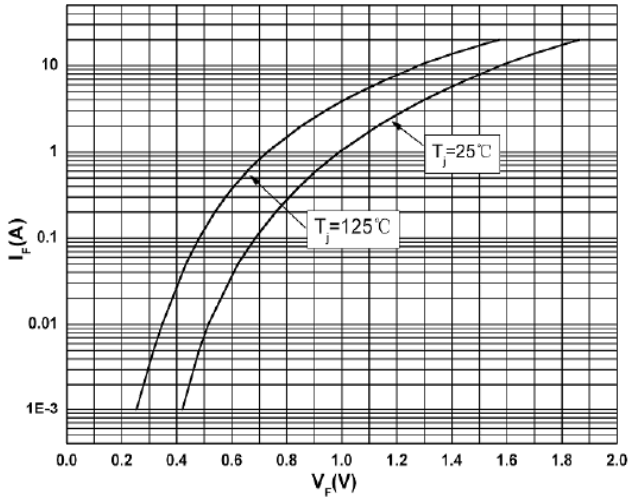
TC=25° C unless otherwise specified

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	V_R=400V, T_J=25°C		--	--	10	μA
		V_R=400V, T_J=125°C		--	--	150	μA
V_F	Forward Voltage	I_F=5A, T_J=25°C		--	1.2	1.8	V
		I_F=5A, T_J=125°C		--	1	--	V
t_{rr}	Reverse Recovery Time (I_F=1A, V_R=30V, di_F/dt=-200A/μs)			--	25	--	ns
t_{rr}	Reverse Recovery Time	I_F=5A VR=400V diF/dt=-200A/μs	T_J=25°C	--	50	--	ns
t_{rr}	Reverse Recovery Time		T_J=125°C	--	85	--	ns
Q_{rr}	Reverse Recovery Charge		T_J=125°C	--	180	--	nC
I_{RRM}	Max. Reverse Recovery Current		T_J=125°C	--	5	--	A

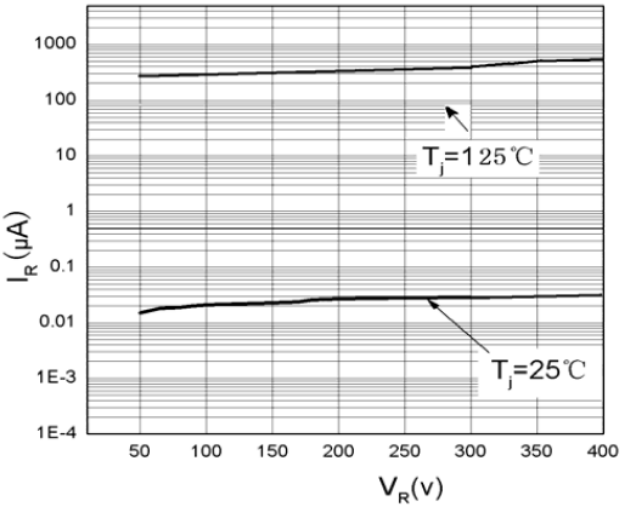
THERMAL CHARACTERISTICS

Rating	Symbol	Value		Unit
Maximum Thermal Resistance	θ_{JC}	TO-263	2	°C/W

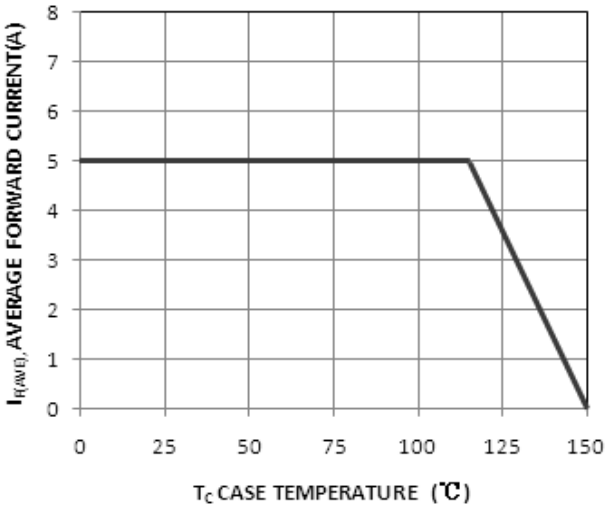
■ Characteristics Curves



Typical Forward Voltage Per Diode



Typical Reverse Current Per Diode



Average Forward Forward Current vs.
Case Temperature Per Diode

TO-263 MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4.42		4.72	e1	2.44	2.54	2.64
B	1.22		1.4	e2	4.98		5.18
b	0.76		0.86	L1	14.7	15.1	15.5
b1	1.22		1.4	L2	2	2.3	2.6
b2	0.33		0.43	L3	1.5		2
C	1.22		1.35	K	-0.1		0.1
D	9.95		10.25	Y	8.51	8.61	8.71
E	8.99		9.29