

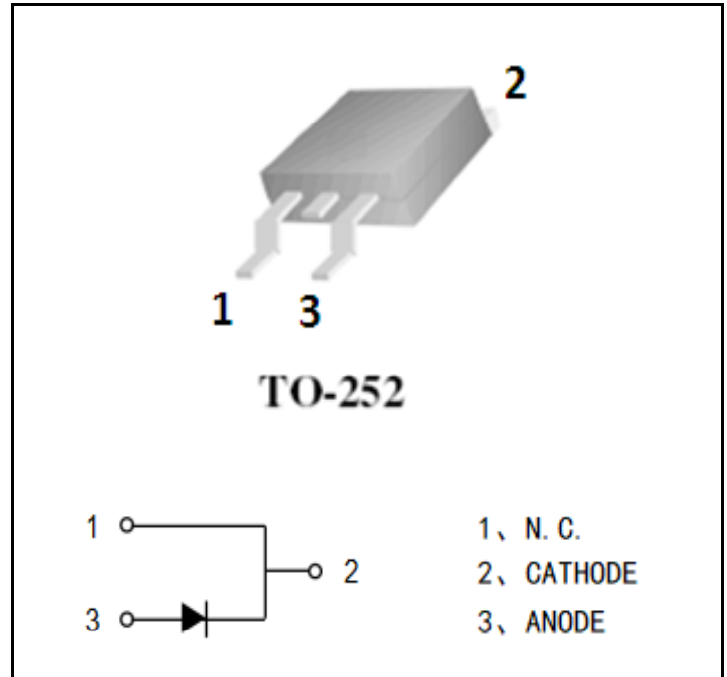


PRODUCT FEATURES

- 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

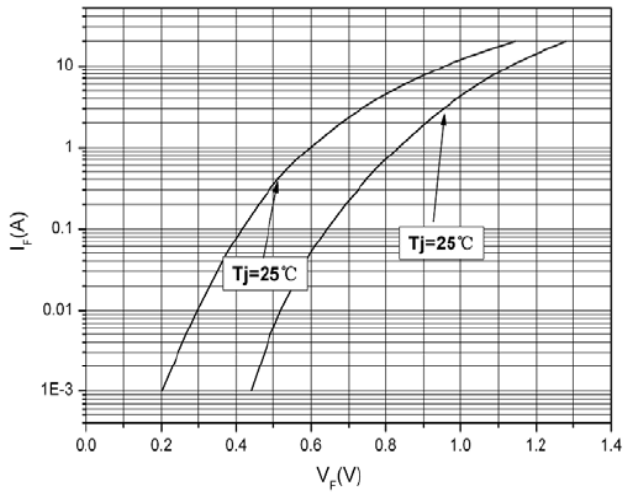
$T_c=25^{\circ}C$ unless otherwise specified

Symbol	Parameter	Test Conditions	Max.	Unit
V_R	D.C. Reverse Voltage		400	V
V_{RRM}	Repetitive Reverse Voltage		400	V
$I_{F(AV)}$ (per leg)	Average Forward Current	$T_c=110^{\circ}C$, Duty=0.5	5	A
I_{FM}	Peak Repetitive Forward Current	$T_c=110^{\circ}C$, Duty=0.5	20	A
I_{FSM}	Non-Repetitive Surge Forward Current	$T=45^{\circ}C$, 8.3ms,	120	A
T_J	Junction Temperature		-55 to +175	$^{\circ}C$
T_{STG}	Storage Temperature Range		-55 to +175	$^{\circ}C$

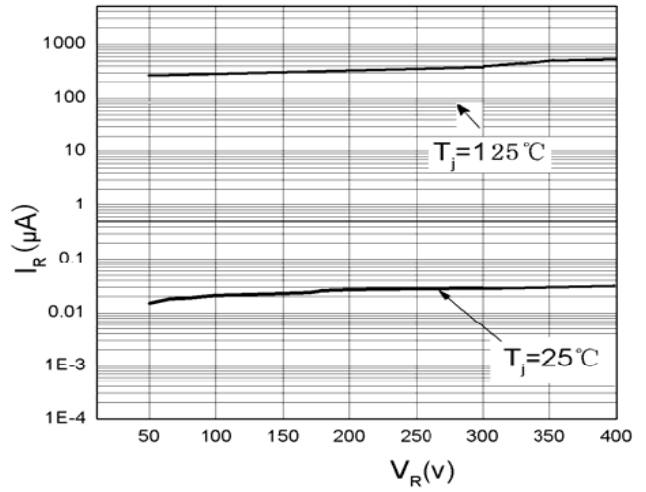
ELECTRICAL AND THERMAL CHARACTERISTICS

$T_c=25^{\circ}C$ unless otherwise specified

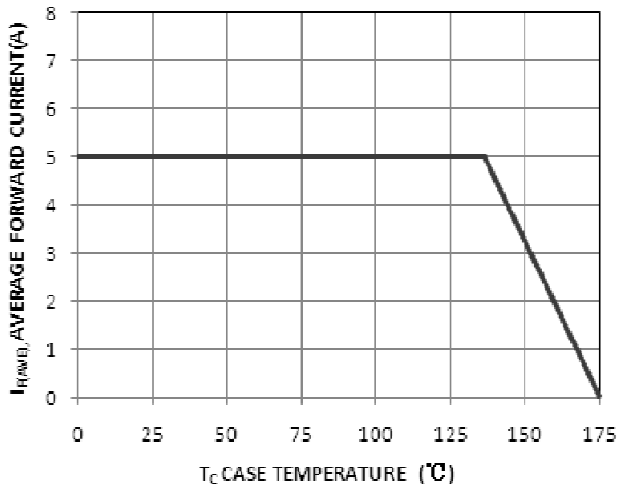
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	$V_R=400V$, $T_J=25^{\circ}C$	--	--	25	μA
		$V_R=400V$, $T_J=125^{\circ}C$	--	--	500	μA
V_F	Forward Voltage	$I_F=5A$, $T_J=25^{\circ}C$	--	1	1.3	V
		$I_F=5A$, $T_J=125^{\circ}C$	--	0.8	--	V
t_{rr}	Reverse Recovery Time ($I_F=1A$, $V_R=30V$, $di_F/dt=-200A/\mu s$)		--	30	--	ns
t_{rr}	Reverse Recovery Time	$I_F=5A$ $V_R=400V$ $di_F/dt=-200A/\mu s$	$T_J=25^{\circ}C$	--	60	ns
t_{rr}	Reverse Recovery Time		$T_J=125^{\circ}C$	--	95	ns
Q_{rr}	Reverse Recovery Charge		$T_J=125^{\circ}C$	--	185	nC
I_{RRM}	Max. Reverse Recovery Current		$T_J=125^{\circ}C$	--	8	A



Forward Voltage Drop vs Forward Current



Typical Reverse Current Per Diode



Average Forward Forward Current vs. Case Temperature Per Diode



TO-252 MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	2.10		2.50	E	5.80		6.30
B	0.80		1.25	e1	2.25	2.30	2.35
b	0.50		0.85	e2	4.45		4.75
b1	0.50		0.90	L1	9.50		10.20
b2	0.45		0.60	L2	0.90		1.45
C	0.45		0.60	L3	0.60		1.10
D	6.35		6.75	K	-0.1		0.10
D1	5.10		5.50				

