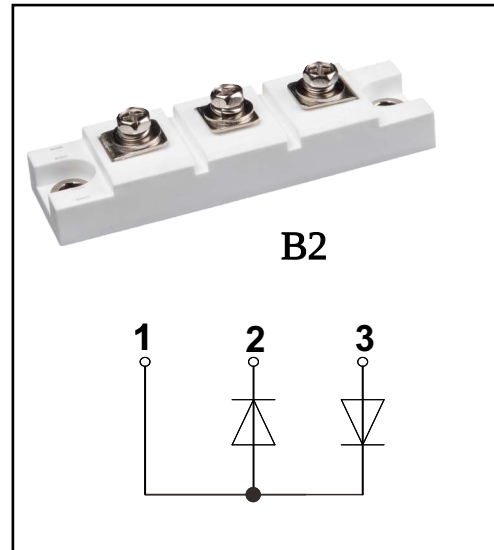


PRODUCT FEATURES

- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Reverse Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

APPLICATION S

- Inversion Welder
- Uninterruptible Power Supply (UPS)
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- Power Factor Correction (PFC) Circuit



ABSOLUTE MAXIMUM RATINGS

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

Symbol	Parameter	Test Conditions	Values	Unit
V_R	Maximum D.C. Reverse Voltage		100	V
V_{RRM}	Maximum Repetitive Reverse Voltage		100	V
$I_{F(AV)}$	Average Forward Current	$T_c=100^{\circ}\text{C}$, Per Diode	100	A
		$T_c=100^{\circ}\text{C}$, 20KHz, Per Moudle	140	A
$I_{F(RMS)}$	RMS Forward Current	$T_c=100^{\circ}\text{C}$, Per Diode	140	A
I_{FSM}	Non-Repetitive Surge Forward Current	1/2 Cycle, 50Hz, Sine	1000	A
		1/2 Cycle, 60Hz, Sine	1400	A
I^2t	I^2t (For Fusing)	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	8100	A^2s
		$T_J=45^{\circ}\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	8300	A^2s
P_D	Power Dissipation		310	W
T_J	Junction Temperature		-40 to +150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range		-40 to +125	$^{\circ}\text{C}$
V_{isol}	Insulation Test Voltage	AC, $t=1\text{min}$	3000	V
Torque	Module-to-Sink	Recommended (M6)	3~6	N.m
Torque	Module Electrodes	Recommended (M6)	3~6	N.m
$R_{\theta JC}$	Thermal Resistance	Junction-to-Case	0.2	$^{\circ}\text{C}/\text{W}$
Weight			105	g

ELECTRICAL CHARACTERISTICS
 $T_C = 25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	$V_R = 100\text{V}$	--	--	5	μA
		$V_R = 100\text{V}, T_J = 125^\circ\text{C}$	--	--	2	mA
V_F	Forward Voltage	$I_F = 100\text{A}$	--	0.80	--	V
		$I_F = 100\text{A}, T_J = 125^\circ\text{C}$	--	0.65	--	V

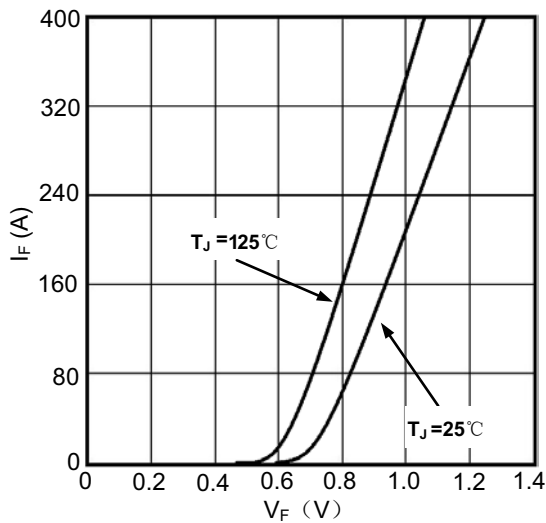
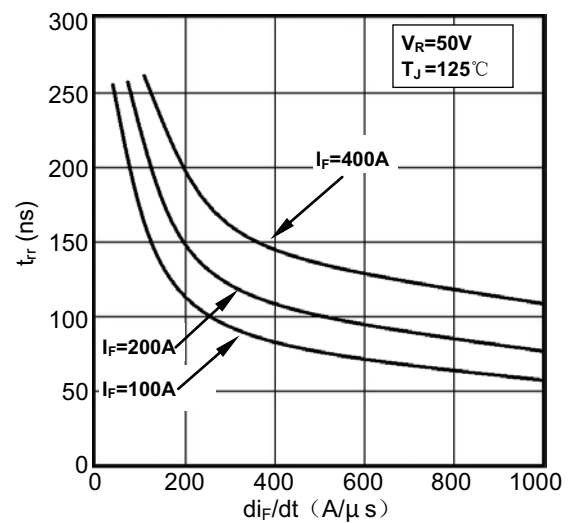
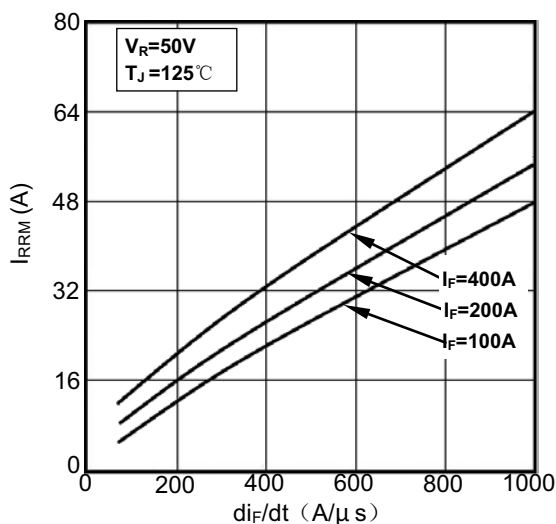
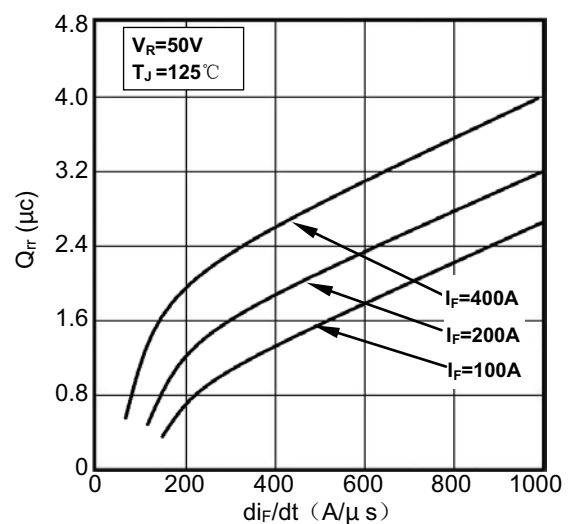


Figure1. Forward Voltage Drop vs Forward Current


 Figure2. Reverse Recovery Time vs di_F/dt

 Figure3. Reverse Recovery Current vs di_F/dt

 Figure4. Reverse Recovery Charge vs di_F/dt

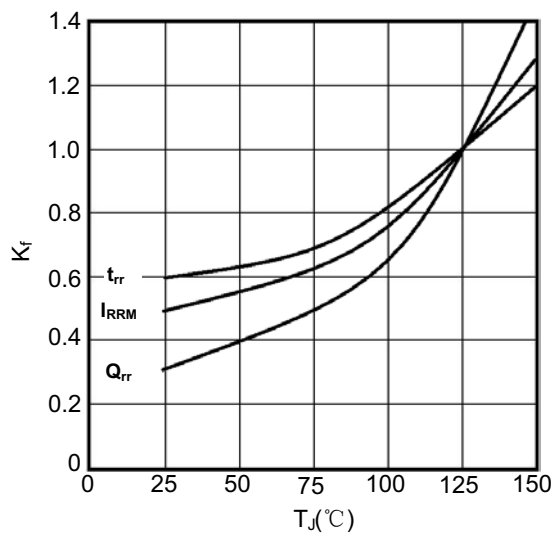


Figure5. Dynamic Parameters vs Junction Temperature

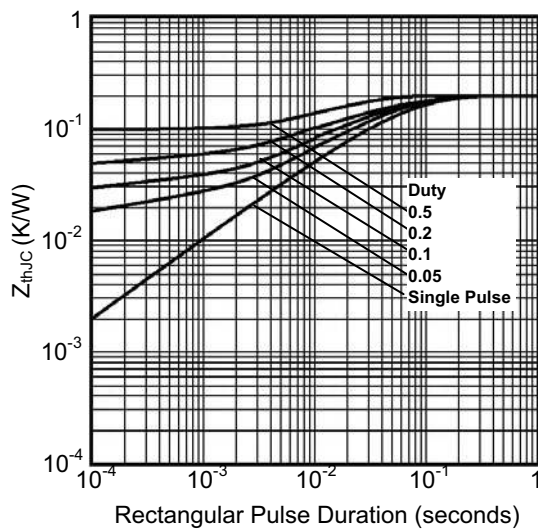
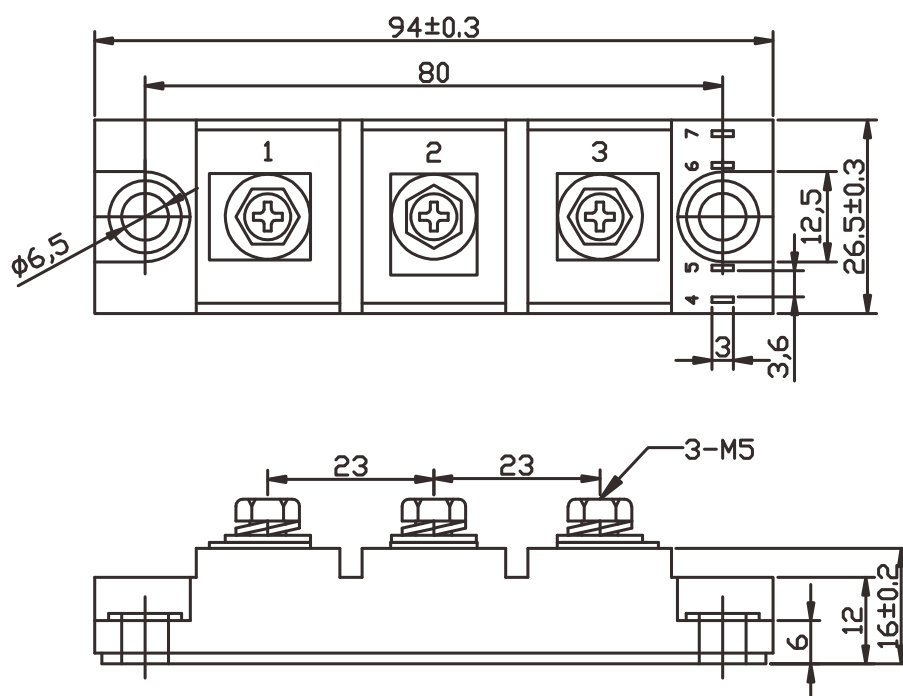


Figure6. Transient Thermal Impedance

Package Outline



Dimensions (mm)