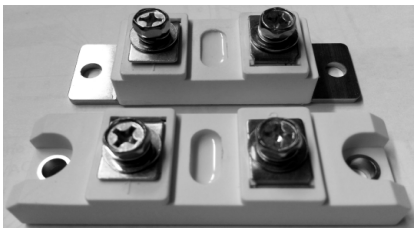
PRODUCT FEATURES

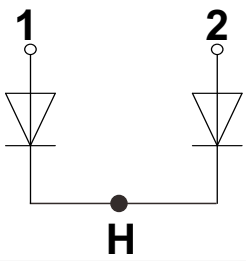
- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Reverse Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

APPLICATION S

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



A2B/A2C



ABSOLUTE MAXIMUM RATINGS

T_C=25℃ unless otherwise specified

Symbol	Parameter	Test Conditions	Values	Unit
V_R	Maximum D.C. Reverse Voltage		1200	V
V_{RRM}	Maximum Repetitive Reverse Voltage		1200	V
$I_{F(AV)}$	Average Forward Current	T_C=125℃, Per Diode	150	A
		T_C=125℃, Per Moudle	300	A
		T_C=125℃, 20KHz, Per Moudle	200	A
$I_{F(RMS)}$	RMS Forward Current	T_C=125℃, Per Diode	210	A
I_{FSM}	Non-Repetitive Surge Forward Current	1/2 Cycle , 50Hz, Sine	1500	A
		1/2 Cycle , 60Hz, Sine	1600	A
I^2t	I^2t (For Fusing)	T_J=45℃, t=10ms, 50Hz, Sine	11200	A^2s
		T_J=45℃, t=8.3ms, 60Hz, Sine	12800	A^2s
P_D	Power Dissipation		560	W
T_J	Junction Temperature		-40 to +150	℃
T_{STG}	Storage Temperature Range		-40 to +125	℃
Torque	Module-to-Sink	Recommended（M6）	3～5	N.m
Torque	Module Terminal	Recommended（M6）	3～5	N.m
$R_{\theta JC}$	Thermal Resistance	Junction-to-Case, Per Diode	0.09	℃ /W
Weight			100	g

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specifed

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	V_R=1200V	--	--	0.5	mA
		V_R=1200V, T_J=125℃	--	--	10	mA
V_F	Forward Voltage	I_F=150A	--	1.6	--	V
		I_F=150A, T_J=125℃	--	1.3	--	V
t_r	Reverse Recovery Time r	I_F=1A, V_R= 30V, di_F/dt=-200A/μs	--	60	--	ns
t_r	Reverse Recovery Time r	V_R=600V, I_F=150A	--	145	--	ns
I_{RRM}	Max. Reverse Recovery Current	di_F/dt=-200A/μs, T_J=25℃	--	10	--	A
t_r	Reverse Recovery Time r	V_R=600V, I_F=150A	--	500	--	ns
I_{RRM}	Max. Reverse Recovery Current	di_F/dt=-200A/μs, T_J=125℃	--	18	--	A

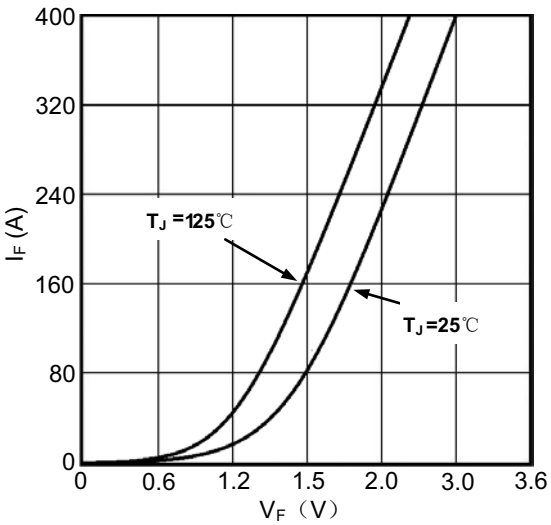


Figure1. Forward Voltage Drop vs Forward Current

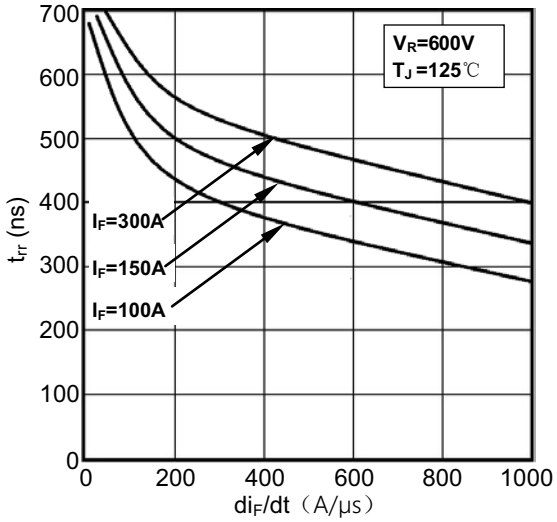


Figure2. Reverse Recovery Time vs di_F/dt

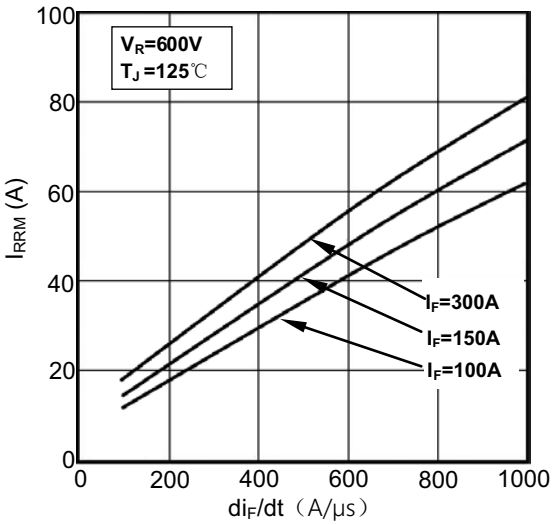


Figure3. Reverse Recovery Current vs di_F/dt

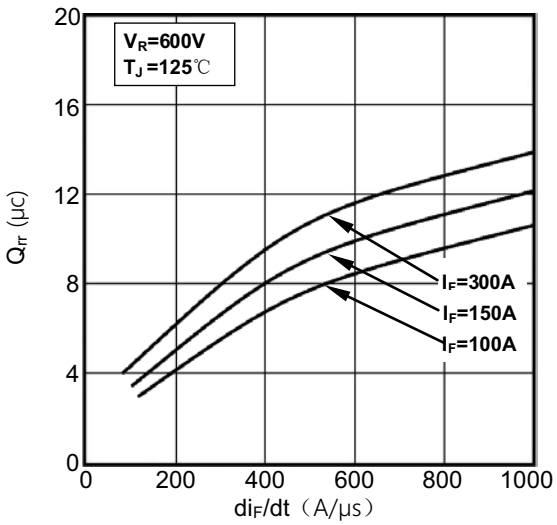


Figure4. Reverse Recovery Charge vs di_F/dt

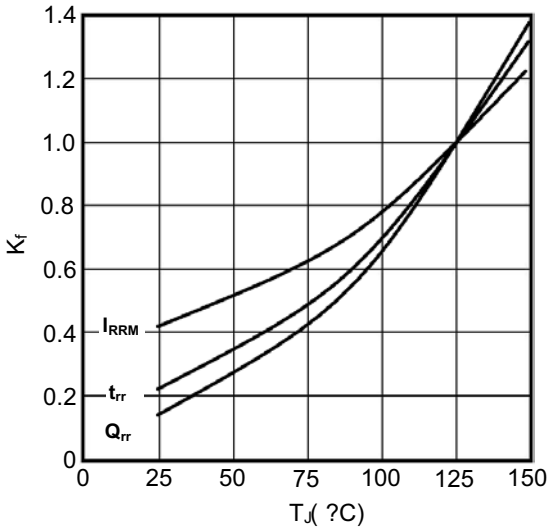


Figure5. Dynamic Parameters vs Junction Temperature

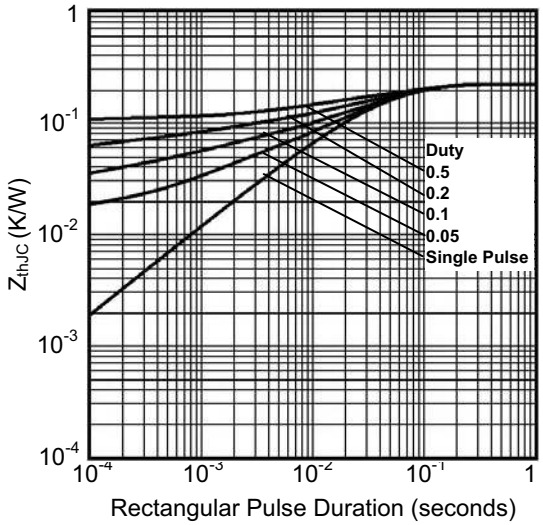
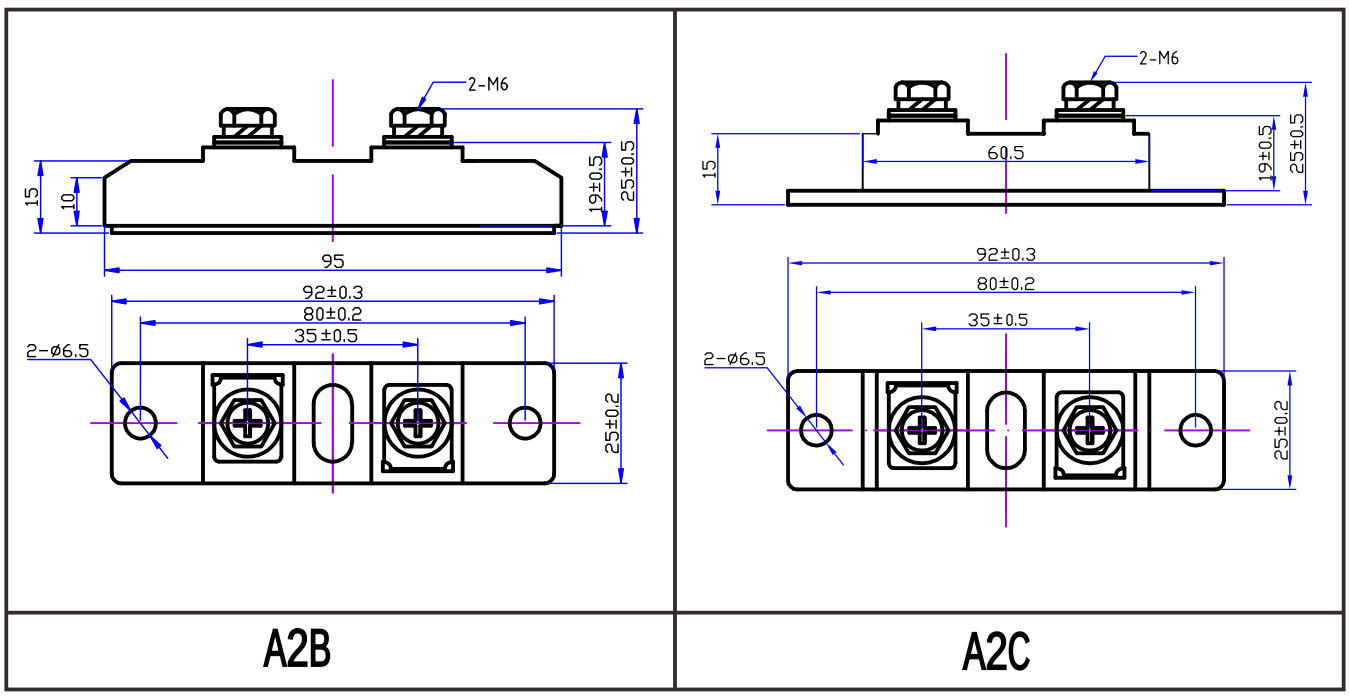


Figure6. Transient Thermal Impedance

Package Outlines



Unit:mm