



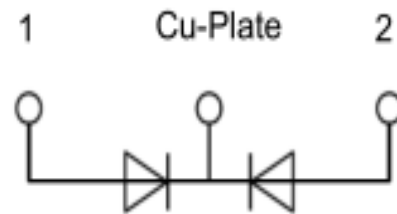
Features

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



Applications

- Inversion Welder
- Uninterruptible Power Supply
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- PFC



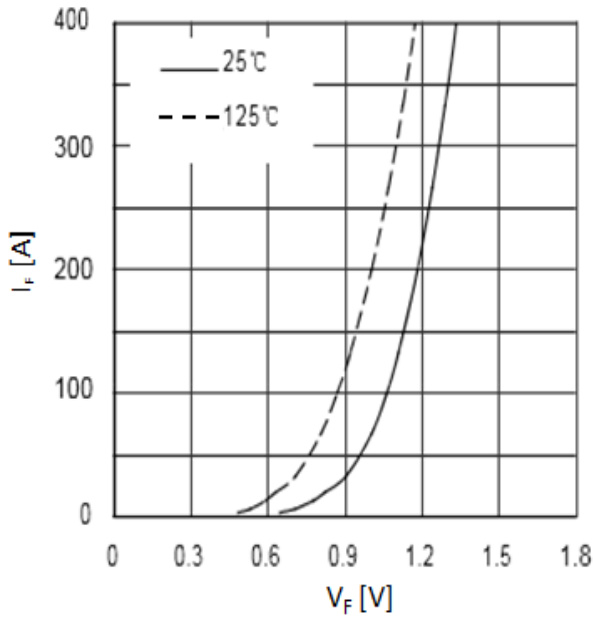
Absolute Maximum Ratings ($T_j=25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter/Test Conditions		Values	Unit
V_{RSM}	Maximum Non-repetitive Reverse Voltage		444	V
V_{RRM}	Maximum Repetitive Reverse Voltage		400	
$I_{F(AV)}$	Average Forward Current	$T_c=100^\circ\text{C}$, Per Diode	200	A
		$T_c=100^\circ\text{C}$, Per Mouldle	400	
$I_F(\text{RMS})$	RMS Forward Current	$T_c=100^\circ\text{C}$, Per Diode	300	
I_{FSM}	Non Repetitive Surge Forward Current	$T_j=45^\circ\text{C}$, $t=10\text{ms}$, Sine, peak value	2550	
		$T_j=45^\circ\text{C}$, $t=8.3\text{ms}$, Sine, peak value	2800	
I^2t	For Fusing	$T_j=45^\circ\text{C}$, $t=10\text{ms}$, Sine, peak value	32510	A^2S
		$T_j=45^\circ\text{C}$, $t=8.3\text{ms}$, Sine, peak value	32530	
P_D	Power Dissipation		1562	W
T_j	Junction Temperature		-40 to +175	$^\circ\text{C}$
T_{STG}	Storage Temperature Range		-40 to +125	$^\circ\text{C}$
Torque	Module to Sink	Recommended (M4)	3~4.7	Nm
Torque	Module to Sink	Recommended (M6)	3~4.7	Nm
R_{thJC}	Junction to Case Thermal Resistance(Per Diode)		0.08	$^\circ\text{C}/\text{W}$
Weight			92	g

Electrical Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)

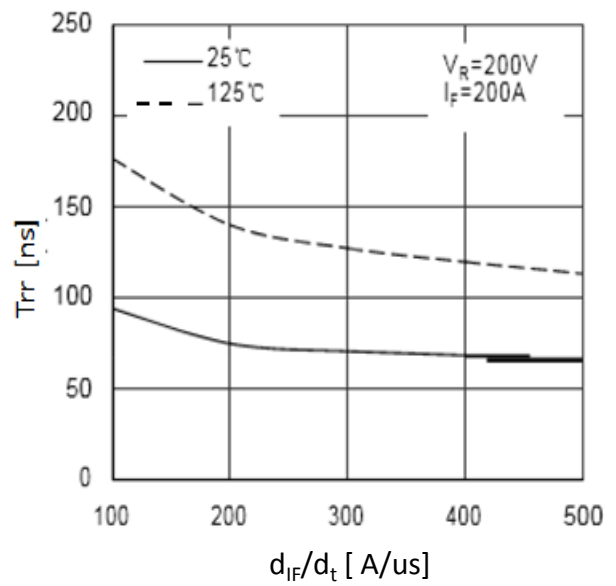
Parameter	Symbol	Test Conditions	Typ.	Max.	Unit
Maximum Reverse Leakage Current	I_{RM}	$V_R = 400\text{V}$		500	μA
		$V_R = 400\text{V}, T_j = 125^\circ\text{C}$		10	mA
Forward Voltage	V_F	$I_F = 200\text{A}$	1.35	1.5	V
		$I_F = 200\text{A}, T_j = 125^\circ\text{C}$	1.25		
Reverse Recovery Time	t_{rr}	$I_F = 200\text{A}, V_R = 200\text{V}, d_{IF} / d_t$	125		ns
Maximum Reverse Recovery Current	I_{RRM}	$= -200\text{A}/\mu\text{s}$	7.5		A
Reverse Recovery Time	t_{rr}	$I_F = 200\text{A}, V_R = 200\text{V}, d_{IF} / d_t$	140		ns
Maximum Reverse Recovery Current	I_{RRM}	$= -200\text{A}/\mu\text{s}, T_j = 125^\circ\text{C}$	15		A

forward voltage drop vs forward current



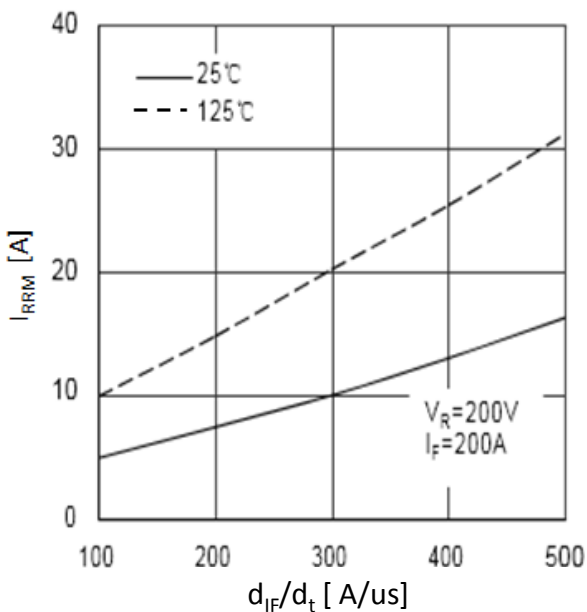
reverse recovery time vs d_{IF}/d_t

$V_R=200V, I_F=200A$



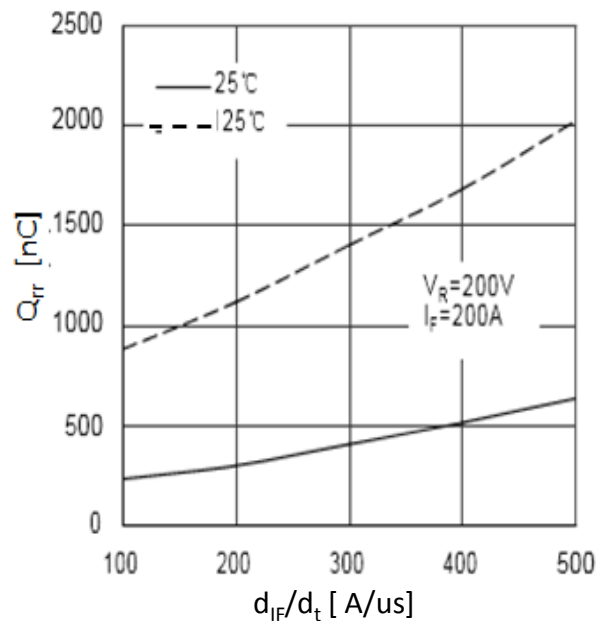
reverse recovery current vs d_{IF}/d_t

$V_R=200V, I_F=200A$

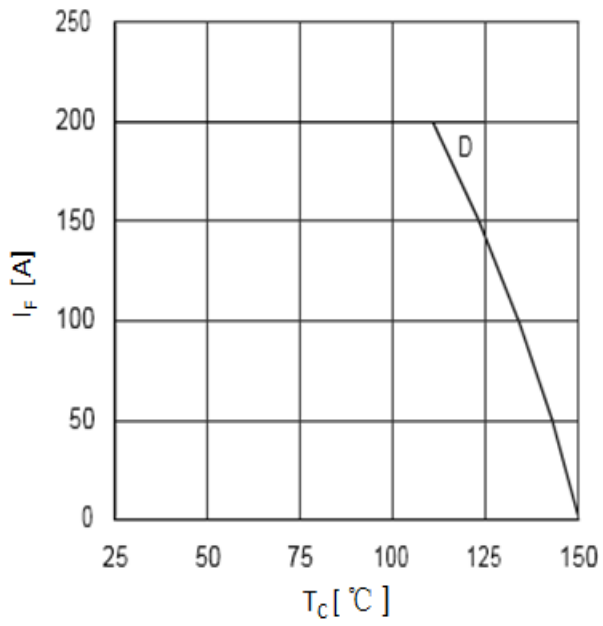


reverse recovery charge vs d_{IF}/d_t

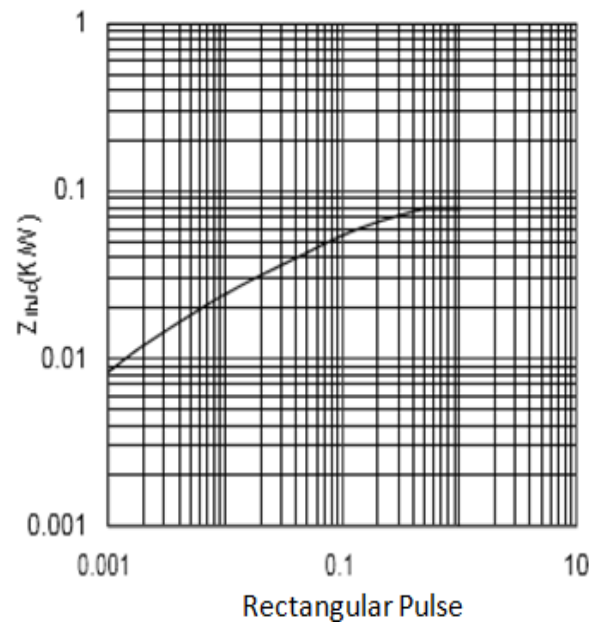
$V_R=200V, I_F=200A$



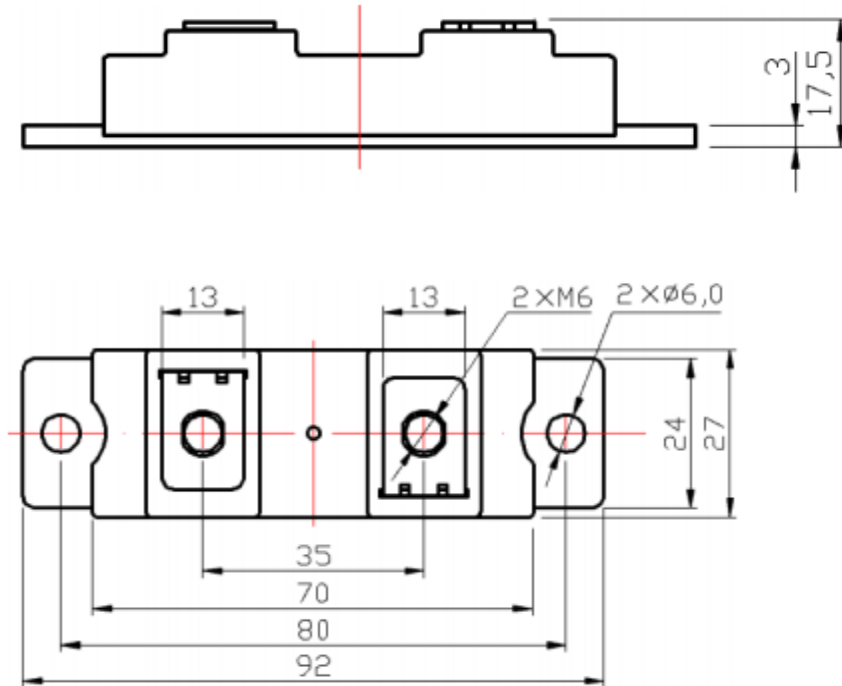
forward current vs case temperature



transient thermal impedance



Package outlines (Units: mm)



Circuit_diagram_headline

