

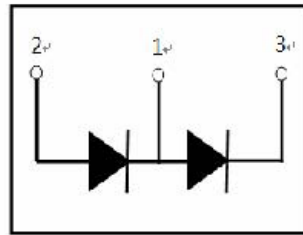
PRODUCT FEATURES

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



APPLICATIONS

- 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	Max.	Unit
V_{RRM}	Repetitive Reverse Voltage		1200	V
$I_{F(AV)}$	Average Forward Current	$T_C=95^\circ\text{C}$ Rectangular, $d=0.5$	200	A
$I_{F(RMS)}$	RMS Forward Current	$T_C=95^\circ\text{C}$ Rectangular, $d=0.5$	290	A
I_{FSM}	Non-Repetitive Surge Forward Current	$T_J=45^\circ\text{C}$, $t=10\text{ms}$, 50Hz, Sine	1860	A
		$T_J=45^\circ\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	1960	A
I^2t	I^2t (For Fusing)	$T_J=45^\circ\text{C}$, $t=10\text{ms}$, 50Hz, Sine	17300	A^2s
		$T_J=45^\circ\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	16010	A^2s
P_D	Power Dissipation		568	W
T_J	Junction Temperature		-40 to +150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range		-40 to +125	$^\circ\text{C}$

ELECTRICAL AND THERMAL CHARACTERISTICS

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

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
I_{RM}	Reverse Leakage Current	$V_R=1200\text{V}$	--	--	300	μA	
		$V_R=1200\text{V}$, $T_J=125^\circ\text{C}$	--	--	30	mA	
V_F	Forward Voltage	$I_F=200\text{A}$	--	--	2.40	V	
		$I_F=200\text{A}$, $T_J=125^\circ\text{C}$	--	--	2.2	V	
t_{rr}	Reverse Recovery Time	$I_F=200\text{A}$, $V_R=600\text{V}$ $di_F/dt=-200\text{A}/\mu\text{s}$	$T_J=25^\circ\text{C}$	--	230	--	ns
I_{RRM}	Max. Reverse Recovery Current			--	21	--	A
t_{rr}	Reverse Recovery Time	$di_F/dt=-200\text{A}/\mu\text{s}$	$T_J=125^\circ\text{C}$	--	470	--	ns
I_{RRM}	Max. Reverse Recovery Current			--	37	--	A
$R_{\theta JC}$	Thermal Resistance	Junction-to-Case	--	--	0.22	$^\circ\text{C}/\text{W}$	

MECHANICAL CHARACTERISTICS

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Torque	Module-to-Sink	Recommended (M6)	3		5	N·m
Torque	Module Electrodes	Recommended (M6)	3		5	N·m

FS Package Outline (Dimensions in mm)

