

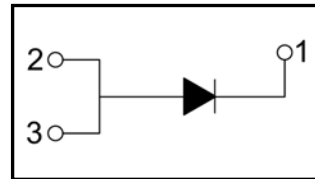
PRODUCT FEATURES

- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Reverse Recovery Loss
- Electrically Isolated by DBC Ceramic
- High System Power Density
- Popular SOT-227 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	Values	Unit
V_R	Maximum D.C. Reverse Voltage		1700	V
V_{RRM}	Maximum Repetitive Reverse Voltage		1700	V
$I_{F(AV)}$	Average Forward Current	$T_C=100^{\circ}\text{C}$	100	A
$I_{F(RMS)}$	RMS Forward Current	$T_C=100^{\circ}\text{C}$	150	A
I_{FSM}	Non-Repetitive Surge Forward Current	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	1100	A
		$T_J=45^{\circ}\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	1200	A
I^2t	I^2t (For Fusing)	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	6050	A^2s
		$T_J=45^{\circ}\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	7200	A^2s
P_D	Power Dissipation		625	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	To-Sink	Recommended (M4)	0.7~1.1	N·m
Torque	To-Terminal	Recommended (M4)	0.7~1.1	N·m
$R_{\theta JC}$	Thermal Resistance	Junction-to-Case	0.20	$^{\circ}\text{C}/\text{W}$
Weight			26.5	g

ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{RM}	Reverse Leakage Current	V _R =1700V	--	--	0.5	mA
		V _R =1700V, T _J =125°C	--	--	10	mA
V _F	Forward Voltage	I _F =100A	--	--	2.37	V
		I _F =100A, T _J =125°C	--	--	2.30	V
t _{rr}	Reverse Recovery Time	V _R =1200V, I _F =100A	--	140	--	ns
I _{RRM}	Max. Reverse Recovery Current	di _F /dt=-1500A/μs, T _J =25°C	--	115	--	A
t _{rr}	Reverse Recovery Time	V _R =1200V, I _F =100A	--	330	--	ns
I _{RRM}	Max. Reverse Recovery Current	di _F /dt=-1500A/μs, T _J =125°C	--	127	--	A

FJ Package Outline (Dimensions in mm)

