

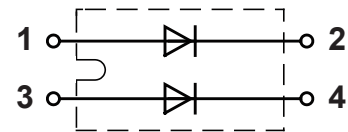
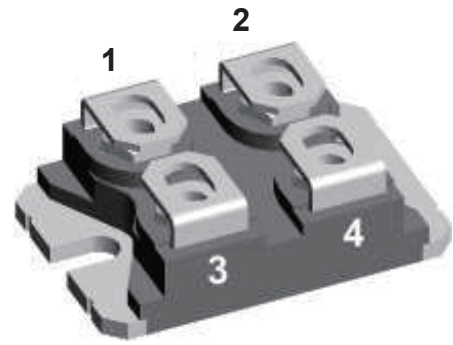
GT125BN120S 2x125A 1200V FRED Module

Features

- ▶ International standard package
- ▶ Isolation voltage 2500 VAC
- ▶ 2 independent FRED in 1 package
- ▶ Planar passivated chips
- ▶ Very short recovery time
- ▶ Extremely low switching losses
- ▶ Low IRM-values
- ▶ Soft recovery behaviour

Typical Applications

- ▶ Antiparallel diode for high frequency switching devices
- ▶ Free wheeling diode in converters and motor control circuits
- ▶ Inductive heating and melting
- ▶ Ultrasonic cleaners and welders
- ▶ Uninterruptible power supplies (UPS)
- ▶ Anti saturation diode
- ▶ Snubber diode
- ▶ AC/DC Motor drives
- ▶ Rectifiers in switch mode power supplies (SMPS)



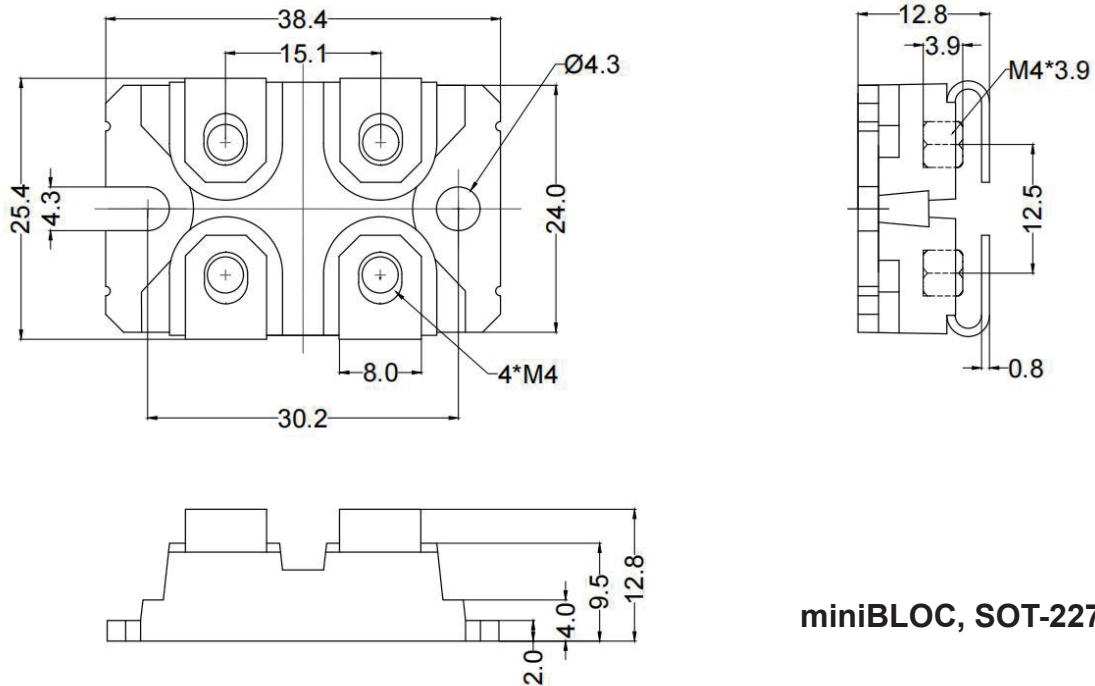
Absolute Maximum Raings(Tc=25°C unless otherwise specified)

Symbol	Parameter/Test Cobditions	Values	Unit	
VR	Maximum d.c. Reverse Voltage	1200	V	
VRRM	Maximum Repetitive Reverse Voltage	1200	V	
IF(AV)	Average Forward Current	Tc=90°C,Per Diode	125	A
		Tc=90°C,Per Module,Tvj=150°C	2x125	A
IF(RMS)	RMS Forward Current	Tc=90°C,Per Diode	196	A
IFSM	Non Repetitive Surge Forward Current	Tj=45°C,10ms,Sine,peak value	925	A
I²t	For Fusing	Tj=45°C,10ms,Sine,peak value	4280	A²S
		Tj=45°C,18.3ms,Sine,peak value	4560	A²S
PD	Power Dissipation	337	W	
Tj	Junction Timperature	-40 to +150	°C	
TSTG	Storage Temperature Range	-40 to +150	°C	
Viso	Isolation Breakdown Voltage	AC,50Hz(RMS),t=1min	2500	V
Rthjc	Junction to Case Thermal Resistance(Per Diode)	0.51	°C/W	
Torque	Module to Sink	M4	1.0-1.5	Nm
	Module Electrodes	M4	1.0-1.5	Nm
Weight		30	g	

ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise specified)

Symbol	Parameter/Test Cobditions	Min.	Typ.	Max.	Unit
IRRM	Maximum Reverse Leakage Current	VR=1200V		0.01	mA
		VR=1200V, Tj=150°C		5	mA
VF	Forward Voltage	IF=60A	1.8	2.3	V
		IF=60A, Tj=125°C	1.6		V
trr	Reverse Recovery Time (IF=1A, dIF/dt=-200A/μs, VR=30V)		60		ns
IRM	Maximrm Reverse Recovery Current	VR=600V, IF=30A, -diF/dt=200A/μs, TVJ=125°C	15		A

Outlines



miniBLOC, SOT-227

