

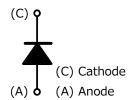


PRELIMINARY

Power Semiconductor FRD (Fast Recovery Diode)

MI-Series 650V / 100A

MMK65A0F00**



Outline

FRD (Bare chip) utilizes various technologies that we cultivated by analog semiconductor device production and is the product which prepared a lineup of the wide high voltage, high current which can contribute to high efficiency and saving energy.

Applications

- Industrial Motor Drivers
- Inverter
- Welding
- •UPS

Features

- Fast Recovery Diode
- ② Low forward voltage
- 3 Soft Recovery
- 4 Fast Switching

Absolute Maximum Ratings

Tj=25℃ unless otherwise noted.

Parameter	Symbol	Rating	Unit
Reverse voltage	VRR	650	V
Forward current *1)	IF	100	Α
Junction temperature	Tj	-40~+175	$^{\circ}$

^{*1)}Forward current is limited by Tj(max) and thermal properties of assembly.

Die Specification

Item	Value	Unit
Die thickness	80	μm
Die size	7.0x3.8(26.6)	mm
Front metal(AlSi)	4.5	μm
Backside metal(AlSi/Ti/Ni/Au)	0.9	μm

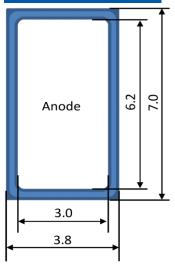
Electrical Characteristics

Ti=25℃ unless otherwise noted.

Parameter		Symbol	Specification		Unit	condition	
			Min	Тур	Max	0	5511411511
Reverse current		IR	-	ı	2	μΑ	VR=650V
Forward voltage	Tj=25℃	VF	-	1.45	1.85	V	IF=100A
	Tj=150℃		-	1.50	-		
	Tj=175℃		-	1.45	-		
Recovery time *Reference chara	cteristics	trr	-	75	-	ns	IF=100A di/dt≒-2100A/μs

This characteristic is when it is incorporated in a mold package or evaluation board. Depending on the assembly conditions etc., it may not be satisfied. Please note that it is not a guaranteed value.

Die Dimension



MinebeaMitsumi Passion to Create Value through Difference



Mitsumi

https://mtm-sec.mitsumi.co.jp/web/ic/

Mitsumi Electric CO.,LTD.

Semiconductor Business Division Strategy Engineering Department

tel:+81-46-230-3470

- Any products mentioned this leaflet are subject to any modification in their appearance and others for improvements without prior notification.
- The details listed here are not a guarantee of the individual products at the time of ordering.
- When using the products, you will be asked to check their specifications.