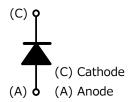


# **PRELIMINARY**

Power Semiconductor FRD (Fast Recovery Diode)

MI-Series 1250V / 200A

# MMKC5B0F00\*\*



# 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	1250	V
Forward current *1)	IF	200	Α
Junction temperature	Tj	-40~+175	$^{\circ}$

<sup>\*1)</sup>Forward current is limited by Tj(max) and thermal properties of assembly.

# Die Specification

Item	Value	Unit
Die thickness	120	μm
Die size	6.7x14.2(95.1)	mm
Front metal(AlSi)	6.5	μm
Backside metal(AlSi/Ti/Ni/Au)	1.45	μm

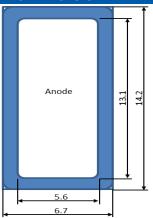
# **Electrical Characteristics**

Tj=25℃ unless otherwise noted.

Parameter		Symbol	Specification		Unit	condition	
			Min	Тур	Max	0	5511411511
Reverse current		IR	-	-	24	μΑ	VR=1250V
Forward voltage	Tj=25℃	VF	-	1.70	2.10	٧	IF=200A
	Tj=150℃		-	1.70	-		
	Tj=175℃		-	1.65	-		
Recovery time *Reference chara	cteristics	trr	ı	140	1	ns	IF=200A di/dt≒-4900A/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**







Mitsumi Q Search

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.