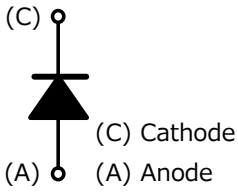
MITSUMI

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

① 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	A
Junction temperature	Tj	-40～+175	℃

*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

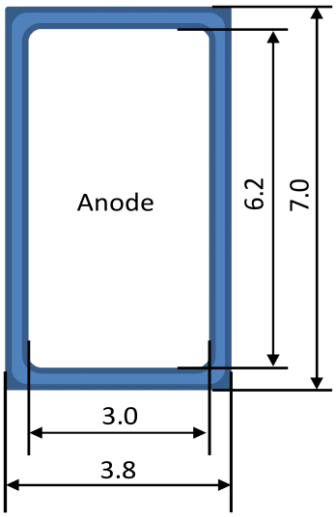
Electrical Characteristics

Tj=25℃ unless otherwise noted.

Parameter		Symbol	Specification			Unit	condition
			Min	Typ	Max		
Reverse current		IR	-	-	2	μA	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 characteristics		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



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