

# FRS300BA50

UL; E76102

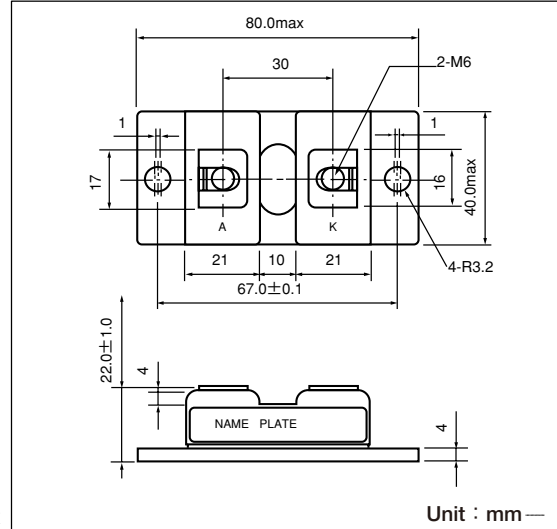
《Features》

FRS300BA is a high speed (fast recovery) isolated diode module designed for high power switching application. FRS300BA is suitable for high frequency application requiring low loss and high speed control.

- High Speed  $t_{rr} \leq 200\text{ns}$
- $I_F$  (AV) 300A
- Isolated Mounting base
- High Surge Capability

《Applications》

- Inverter Welding Power Supply / Power Supply for Telecommunication / Various Switching Power Supply



A ————|——— K

Unit : mm

■ Maximum Ratings (T<sub>j</sub>=25°C unless otherwise specified)

Item	Symbol	Unit	FRS300BA50
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	500
Reverse D.C. Voltage	V <sub>R(DC)</sub>	V	400

Item	Symbol	Unit	Ratings	Conditions
Forward Current	I <sub>F</sub>	A	300	D.C. T <sub>c</sub> =85°C
Surge Forward Current	I <sub>FSM</sub>	A	4000	1/2cycle, 60Hz, Peak value, non-repetitive
I <sup>2</sup> t(for fusing)	I <sup>2</sup> t	A <sup>2</sup> s	66600	Value for one cycle of surge current
Junction Temperature	T <sub>j</sub>	°C	-40 to +150	
Storage Temperature	T <sub>stg</sub>	°C	-40 to +125	
Isolation Voltage(R.M.S.)	V <sub>ISO</sub>	V	2500	A.C. 1minute
Mounting torque	Mounting M6	N·m (kgf·cm)	4.7(48)	Recommended Value 2.5 to 3.9 (25 to 40)
	Terminal M6		4.7(48)	Recommended Value 2.5 to 3.9 (25 to 40)
Mass		g	170	Typical Value

■ Electrical Characteristics (T<sub>j</sub>=25°C unless otherwise specified)

Item	Symbol	Unit	Ratings			Conditions
			Min.	Typ.	Max.	
Repetitive Peak Reverse Current	I <sub>RRM</sub>	mA			300	V <sub>RRM</sub> =500V, T <sub>j</sub> =125°C
Forward Voltage Drop	V <sub>FM</sub>	V			1.30	I <sub>F</sub> =300A, Inst.measurement
Reverse Recovery time	t <sub>rr</sub>	ns			200	I <sub>F</sub> =300A, -di/dt=300A/μs
Thermal Resistance (Junction to case)	R <sub>th</sub>	°C/W			0.165	

