

# DIODE MODULE (F.R.D.)

# FRD/FDS100BA60

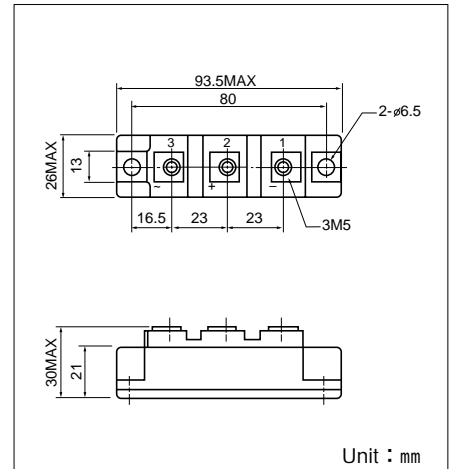
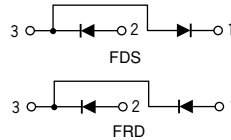
UL:E76102(M)

FRD(FDS)100BA is a high speed (fast recovery) dual diode module designed for high power switching application. FRD(FDS)100BA is suitable for high frequency application requiring low loss and high speed control.

- High Speed  $t_{rr} \leq 100\text{ns}$
- $I_{F(AV)}$  100A (each device)
- Isolated mounting construction.
- High Surge Capability

### (Applications)

Switching Power Supply, Inverter Welding Power Supply  
Power Supply for Telecommunication



### Maximum Ratings

( $T_j = 25^\circ\text{C}$  unless otherwise specified)

Symbol	Item	Ratings	Unit
$V_{RRM}$	Repetitive Peak Reverse Voltage	600	V
$V_{R(DC)}$	D.C. Reverse Voltage	480	V

Symbol	Item	Conditions	Ratings	Unit	
$I_F$	Forward Current	D.C. $T_c : 94^\circ\text{C}$	100	A	
$I_{FSM}$	Surge Forward Current	$\frac{1}{2}$ cycle, 60Hz, peak value, non-repetitive	2000	A	
$I^2t$	$I^2t$	Value for One cycle of surge current	16700	$\text{A}^2\text{S}$	
$T_j$	Operating Junction Temperature		-40 to +150	$^\circ\text{C}$	
$T_{stg}$	Storage Temperature		-40 to +125	$^\circ\text{C}$	
$V_{iso}$	Isolation Breakdown Voltage (R.M.S.)	A.C. 1 minute	2500	V	
	Mounting Torque	Mounting(M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	Nm ( $\text{kgf}\cdot\text{cm}$ )
		Terminal (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	
	Mass			170	g

### Electrical Characteristics

Symbol	Item	Conditions	Ratings		Unit
			Typ.	Max.	
$I_{RRM}$	Repetitive Peak Reverse Current, max.	$V_R = V_{RRM}, T_j = 125^\circ\text{C}$		100	mA
$V_{FM}$	Forward Voltage Drop, max.	Forward current 100A, Inst. measurement	1.15	1.3	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case		0.4	$^\circ\text{C}/\text{W}$
$t_{rr}$	Reverse Recovery Time, max.	$I_F = 100\text{A}, di/dt = -100\text{A}/\mu\text{s}$	85	100	ns

