

DIODE MODULE (F.R.D.)

FRD/FDS100AA40/60

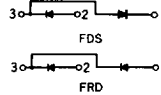
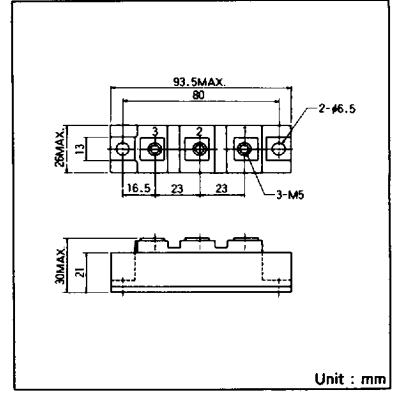
UL; E76102 (M)

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

- High Speed $t_{rr} \leq 200\text{ns}$
- $I_{F(AV)} = 100\text{A}$ (each device)
- Isolated mounting construction.
- High Surge Capability

(Applications)

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



Unit : mm
 $T_j = 25^\circ\text{C}$

Maximum Ratings

Symbol	Item	FRD(FDS)100AA40	FRD(FDS)100AA60	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	400	600	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	480	720	V

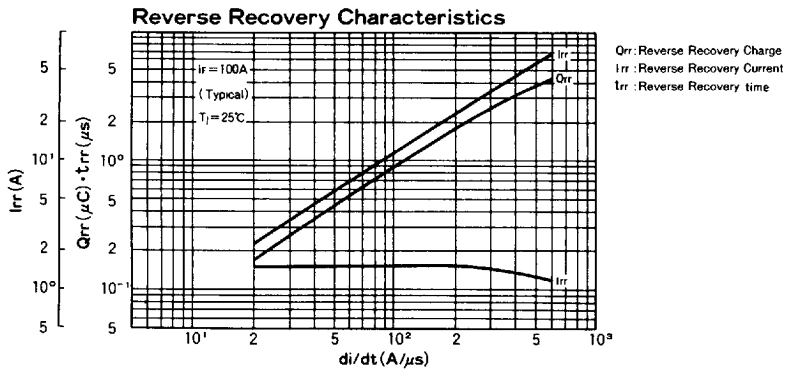
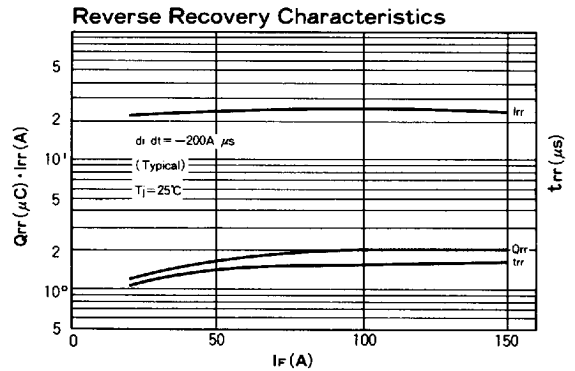
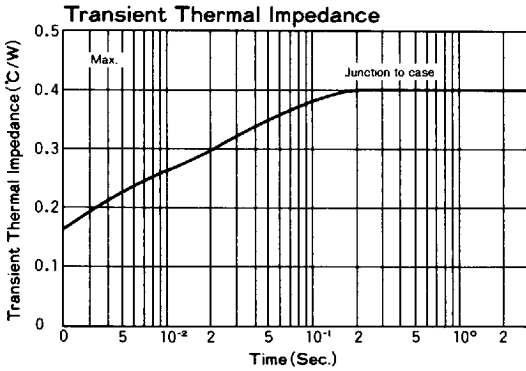
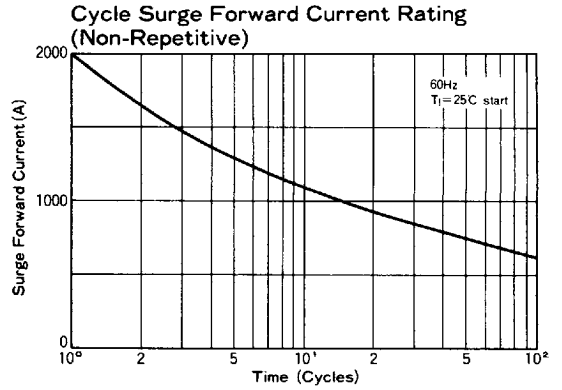
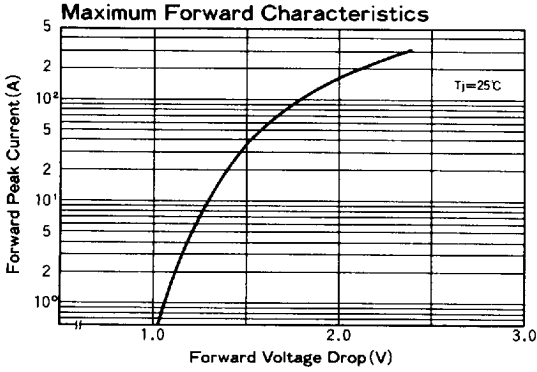
Symbol	Item	Conditions	Ratings	Unit
$I_{F(AV)}$	Average Forward Current	D.C. $T_c : 78^\circ\text{C}$	100	A
I_{FSM}	Surge Forward Current	$\frac{1}{2}$ cycle, 50/60Hz, peak value, non-repetitive	1800/2000	A
I^2t	I^2t		16600	A^2S
T_j	Operating Junction Temperature		$-40 \sim +150$	$^\circ\text{C}$
T_{stg}	Storage Temperature		$-40 \sim +125$	$^\circ\text{C}$
V_{iso}	Isolation Breakdown Voltage (R.M.S.)	A.C. 1minute	2500	V
	Mounting Torque	(M6)	Recommended Value 2.5~3.9 (25~40)	4.7 (48)
		Terminal (M5)	Recommended Value 1.5~2.5 (15~25)	2.7 (28)
	Mass		170	g

Electrical Characteristics

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

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	at V_{DRM} , single phase, half wave, $T_j = 150^\circ\text{C}$	150	mA
V_{FM}	Forward Voltage Drop, max.	Forward current 100A, Inst. measurement	1.8	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.4	$^\circ\text{C/W}$
t_{rr}	Reverse Recovery Time, max	$I_F = 100\text{A}$, $di/dt = -100\text{A}/\mu\text{s}$	200	ns

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DIODE