

Fast Recovery Diode Modules

Circuit configuration:Half-Bridge

ITEM	V _{RRM}	I _F (AV)	I _{FSM}	I ² t	I _{RRM}	V _{FM} /I _{FM}	t _{rr}	V _{FO}	r _F	Rth(j-c)	Rth(c-h)	T _{Jm}	Viso	Out Line No.
CONDITION	125°C	85°C	10ms		125°C	25°C	150°C	125°C		per chip		°C	V(AC)	
UNIT	V	A	kA	kA ² s	mA	V/A	μs	V	m·Ω	°C/W				
MD75DF**	800-1,800	75	2	20	20	2.00/225	4	1.10	3.0	0.31	0.08	140	2,500	M02
MD150DF**	800-1,800	150	3.8	72	40	1.65/450	4	1.05	1.0	0.22	0.04	140	2,500	M03
MD200DF**	800-1,800	200	5.5	151	40	1.55/600	4	0.95	0.9	0.18	0.04	140	2,500	M03
MD250DF**	800-1,800	250	6.2	192	70	1.55/750	4	1.08	0.35	0.15	0.04	140	2,500	M05
MD300DF**	800-1,800	300	8.3	344	70	1.55/900	4	0.95	0.48	0.12	0.04	140	2,500	M05
MD400DF**	800-1,800	400	9.5	451	90	1.60/1,200	4	1.10	0.27	0.09	0.02	140	2,500	M07

Water Colling Type

ITEM	V _{RRM}	I _F (AV)	I _{FSM}	I ² t	I _{RRM}	V _{FM} /I _{FM}	t _{rr}	V _{FO}	r _F	Rth(j-c)	Rth(c-f)	T _{Jm}	Viso	Out Line No.
CONDITION	150°C	60°C	10ms		150°C	25°C	150°C	150°C		per chip		°C	V(AC)	
UNIT	V	A	kA	kA ² s	mA	V/A	μs	V	m·Ω	°C/W				
MD300DF**W	800-1,600	300	6	180	40	2.20/90	3	1.05	1.2	0.16	0.04	150	2,500	M13
MD400DF**W	800-1,600	400	8.3	344	40	2.10/1,200	4	1.00	0.85	0.13	0.04	140	2,500	M14

Circuit configuration:Cathode Common

ITEM	V _{RRM}	I _F (AV)	I _{FSM}	I ² t	I _{RRM}	V _{FM} /I _{FM}	t _{rr}	V _{FO}	r _F	Rth(j-c)	Rth(c-h)	T _{Jm}	Viso	Out Line No.
CONDITION	125°C	85°C	10ms		125°C	25°C	100°C	125°C		per chip		°C	V(AC)	
UNIT	V	A	kA	kA ² s	mA	V/A	μs	V	m·Ω	°C/W				
MC75DF**	800-1,800	75	2	20	20	2.00/225	4	1.10	3.0	0.31	0.08	140	2,500	M02
MC150DF**	800-1,800	150	3.8	72	40	1.65/450	4	1.05	1.0	0.22	0.04	140	2,500	M03
MC200DF**	800-1,800	200	5.5	151	40	1.55/600	4	0.95	0.9	0.18	0.04	140	2,500	M03
MC250DF**	800-1,800	250	6.2	192	70	1.55/750	4	1.08	0.35	0.15	0.04	140	2,500	M05
MC300DF**	800-1,800	300	8.3	344	70	1.55/900	4	0.95	0.48	0.12	0.04	140	2,500	M05
MC400DF**	800-1,800	400	9.5	451	90	1.60/1,200	4	1.10	0.27	0.09	0.02	140	2,500	M07

Water Colling Type

ITEM	V _{RRM}	I _F (AV)	I _{FSM}	I ² t	I _{RRM}	V _{FM} /I _{FM}	t _{rr}	V _{FO}	r _F	Rth(j-c)	Rth(c-f)	T _{Jm}	Viso	Out Line No.
CONDITION	150°C	60°C	10ms		150°C	25°C	150°C	150°C		per chip		°C	V(AC)	
UNIT	V	A	kA	kA ² s	mA	V/A	μs	V	m·Ω	°C/W				
MC300DF**W	800-1,600	300	6	180	40	2.20/90	3	1.05	1.2	0.16	0.04	150	2,500	M13
MC400DF**W	800-1,600	400	8.3	344	40	2.10/1,200	4	1.00	0.85	0.13	0.04	140	2,500	M14

Circuit configuration:Anode Common

ITEM	V _{RRM}	I _F (AV)	I _{FSM}	I ² t	I _{RRM}	V _{FM} /I _{FM}	t _{rr}	V _{FO}	r _F	Rth(j-c)	Rth(c-h)	T _{Jm}	Viso	Out Line No.
CONDITION	125°C	85°C	10ms		125°C	25°C	100°C	125°C		per chip		°C	V(AC)	
UNIT	V	A	kA	kA ² s	mA	V/A	μs	V	m·Ω	°C/W				
MR75DF**	800-1,800	75	2	20	20	2.00/225	4	1.10	3.0	0.31	0.08	140	2,500	M02
MR150DF**	800-1,800	150	3.8	72	40	1.65/450	4	1.05	1.0	0.22	0.04	140	2,500	M03
MR200DF**	800-1,800	200	5.5	151	40	1.55/600	4	0.95	0.9	0.18	0.04	140	2,500	M03
MR250DF**	800-1,800	250	6.2	192	70	1.55/750	4	1.08	0.35	0.15	0.04	140	2,500	M05
MR300DF**	800-1,800	300	8.3	344	70	1.55/900	4	0.95	0.48	0.12	0.04	140	2,500	M05
MR400DF**	800-1,800	400	9.5	451	90	1.60/1,200	4	1.10	0.27	0.09	0.02	140	2,500	M07

Water Colling Type

ITEM	V _{RRM}	I _F (AV)	I _{FSM}	I ² t	I _{RRM}	V _{FM} /I _{FM}	t _{rr}	V _{FO}	r _F	Rth(j-c)	Rth(c-f)	T _{Jm}	Viso	Out Line No.
CONDITION	150°C	60°C	10ms		150°C	25°C	150°C	150°C		per chip		°C	V(AC)	
UNIT	V	A	kA	kA ² s	mA	V/A	μs	V	m·Ω	°C/W				
MR300DF**W	800-1,600	300	6	180	40	2.20/90	3	1.05	1.2	0.16	0.04	150	2,500	M13
MR400DF**W	800-1,600	400	8.3	344	40	2.10/1,200	4	1.00	0.85	0.13	0.04	140	2,500	M14

Circuit configuration:Single

Fast Recovery Diode Modules

ITEM	V _{RRM}	I _{F(AV)}	I _{FSM}	I _t ²	I _{RRM}	V _{FM} /I _{FM}	t _{rr}	V _{FO}	r _F	R _{th(j-c)}	R _{th(c-h)}	T _{jm}	Viso	Out Line No.
CONDITION	125°C	85°C	10ms		125°C	25°C	100°C	125°C		per chip		T _{jm}	Viso	
UNIT	V	A	kA	kA ² s	mA	V/A	μs	V	m·Ω	°C/W		°C	V(AC)	
MH75DF**	800-1,800	75	2	20	20	2.00/225	4	1.10	3.0	0.31	0.08	140	2,500	M02
MH150DF**	800-1,800	150	3.8	72	40	1.65/450	4	1.05	1.0	0.22	0.04	140	2,500	M03
MH200DF**	800-1,800	200	5.5	151	40	1.55/600	4	0.95	0.9	0.18	0.04	140	2,500	M03
MH250DF**	800-1,800	250	6.2	192	70	1.55/750	4	1.08	0.35	0.15	0.04	140	2,500	M05
MH300DF**	800-1,800	300	8.3	344	70	1.55/900	4	0.95	0.48	0.12	0.04	140	2,500	M05
MH400DF**	800-1,800	400	9.5	451	90	1.60/1,200	4	1.10	0.27	0.09	0.02	140	2,500	M07

Super Fast Recovery Diode Modules

Circuit configuration:Cathode Common

ITEM	V _{RRM}	I _{F(AV)}	I _{FSM}	I _{RRM}		I _{FRM}	V _{FM} /I _{FM}	t _{rr}	R _{th(j-c)}	T _{jm}	Out Line No.
CONDITION	125°C	Per Device	10ms	125°C	25°C	20kHz 95°C	25°C	25°C	per chip	T _{jm}	
UNIT	V	A	kA	μA		A	V/A	ns	°C/W	°C	
MC200DF20SN	200	200/@130°C	0.8	1,000	150	200	1.00/100	50	0.45	175	M34
MC200DF40SN	400	200/@100°C	0.8	500	50	200	1.30/100	75	0.45	175	M34
MC400DF40SN	400	400/@100°C	3.5	1,000	100	400	1.15/200	50	0.15	175	M35

Circuit configuration:Anode Common

ITEM	V _{RRM}	I _{F(AV)}	I _{FSM}	I _{RRM}		I _{FRM}	V _{FM} /I _{FM}	t _{rr}	R _{th(j-c)}	T _{jm}	Out Line No.
CONDITION	125°C	Per Device	Per Arm 10ms	125°C	25°C	20kHz 95°C	25°C	25°C	per chip	T _{jm}	
UNIT	V	A	A	μA		A	V/A	ns	°C/W	°C	
MR200DF20SN	200	200/@130°C	800	1,000	150	200	1.00/100	50	0.45	175	M34
MR200DF40SN	400	200/@100°C	800	500	50	200	1.30/100	75	0.45	175	M34