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MRD6.8FB - MRD82FB

ZENER DIODES

V_Z : 6.8 - 82 Volts

P_D : 1 Watt

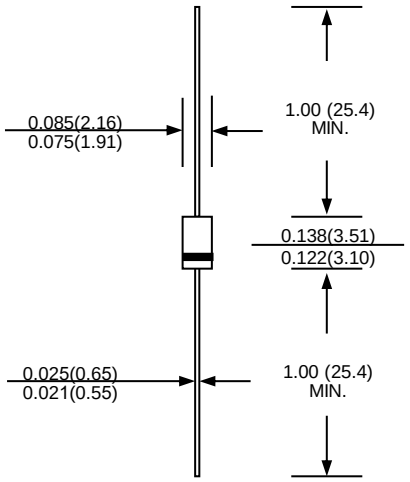
FEATURES :

* Complete 6.8 to 82 Volts
* High peak reverse power dissipation
* High reliability
* Low leakage current
* Pb / RoHS Free

MECHANICAL DATA

* Case : M1A Molded plastic
* Epoxy : UL94V-0 rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.20 gram (approximately)

M1A



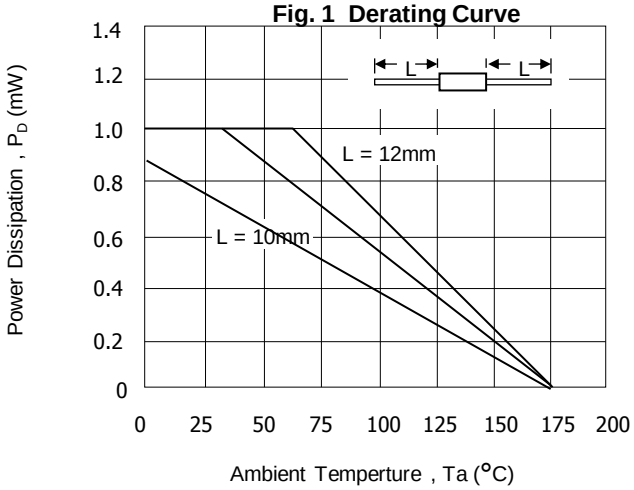
Dimensions in inches and (millimeters)

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
Power Dissipation , See Fig. 1	P_D	1.0	W
Forward Current	I_F	200	mA
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	- 65 to + 175	°C

Fig. 1 Derating Curve



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Type Number	Suffix		Zener Voltage V_Z (V)(1)			Dynamic Impedance Z_Z(Ω)(2)		Reverse Current I_R(μA)	
			Min.	Max.	I_Z (mA)	Max.	Iz (mA)	Max.	V_R (V)
MRD6.8F	B	B1	6.35	6.71	40	6	40	20	3.5
		B2	6.55	6.90					
		B3	6.74	7.10					
MRD7.5F	B	B1	6.93	7.33	40	4	40	20	4.0
		B2	7.17	7.55					
		B3	7.39	7.80					
MRD8.2F	B	B1	7.58	8.03	40	4	40	20	5.0
		B2	7.87	8.28					
		B3	8.12	8.54					
MRD9.1F	B	B1	8.34	8.80	40	6	40	20	6.0
		B2	8.64	9.08					
		B3	8.91	9.38					
MRD10F	B	B1	9.16	9.67	40	6	40	10	7.0
		B2	9.50	9.99					
		B3	9.83	10.40					
MRD11F	B	B1	10.22	10.75	20	8	20	10	8.0
		B2	10.54	11.09					
		B3	10.87	11.43					
MRD12F	B	B1	11.19	11.77	20	8	20	10	8.0
		B2	11.50	12.09					
		B3	11.80	12.41					
MRD13F	B	B1	12.19	12.85	20	10	20	10	10
		B2	12.63	13.30					
		B3	13.11	13.83					
MRD15F	B	B1	13.55	14.28	20	10	20	10	11
		B2	14.05	14.77					
		B3	14.52	15.26					
MRD16F	B	B1	14.98	15.75	20	12	20	10	12
		B2	15.44	16.23					
		B3	15.89	16.71					
MRD18F	B	B1	16.37	17.27	20	12	20	10	13
		B2	17.03	17.91					
		B3	17.64	18.55					
MRD20F	B	B1	18.26	19.21	20	14	20	10	15
		B2	18.93	19.91					
		B3	19.59	20.84					
MRD22F	B	B1	20.45	21.51	10	14	10	10	17
		B2	21.10	22.18					
		B3	21.75	22.86					
MRD24F	B	B1	22.44	23.59	10	16	10	10	19
		B2	23.17	24.36					
		B3	23.90	25.14					
MRD27F	B	B1	24.63	26.10	10	16	10	10	21
		B2	25.70	27.12					
		B3	26.72	28.43					
MRD30F	B	B1	27.43	29.09	10	18	10	10	23
		B2	28.64	30.10					
		B3	29.57	31.26					
MRD33F	B	B1	30.35	31.97	10	18	10	10	25
		B2	31.49	33.06					
		B3	32.39	34.15					
MRD36F	B	B1	33.24	34.94	10	20	10	10	27
		B2	34.26	36.01					
		B3	35.19	37.01					
MRD39F	B	B1	36.11	38.00	10	20	10	10	30
		B2	37.14	39.04					
		B3	38.13	40.80					

Notes:

(1) Test with pulse (40 ms).

(2) Zz is measured at IZ given an very small A.C. Current Signal.

(3) MRDxxFB last numeric is not indicate 1,2,3 zener voltage range is bettween B1 $_{(Min)}$ and B3 $_{(Max)}$

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Type Number	Suffix		Zener Voltage V_Z (V)[1]			Dynamic Impedance Z_Z(Ω)[2]		Reverse Current I_R(μA)	
			Min.	Max.	I_Z (mA)	Max.	Iz (mA)	Max.	V_R (V)
MRD43F	**B**		40	45	10	50	10	5	33
MRD47F	**B**		44	49	10	50	10	5	36
MRD51F	**B**		48	54	10	50	10	5	39
MRD56F	**B**		53	60	10	50	10	5	43
MRD62F	**B**		58	66	10	50	10	5	47
MRD68F	**B**		64	72	10	70	10	5	52
MRD75F	**B**		70	79	10	90	10	5	57
MRD82F	**B**		77	87	10	90	10	5	63

Notes:

(1) Test with pulse (40 ms).

(2) Zz is measured at IZ given an very small A.C. Current Signal.