



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

MMSZ4735A  
THRU  
MMSZ1200A

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT ZENER DIODES

VOLTAGE RANGE - 6.2 to 200 Volts

POWER - 1.0 Watts

FEATURES

- \* Voltage Range: 6.2V to 200V
- \* Low leakage
- \* Low inductance
- \* High peak reverse power dissipation
- \* Glass passivated junction
- \* Build-in strain relief

MECHANICAL DATA

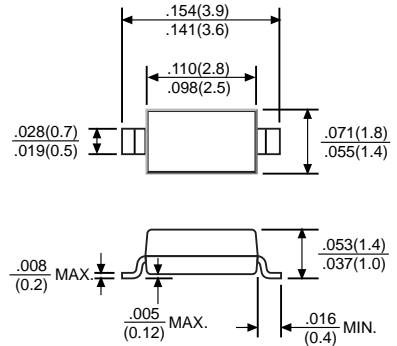
- \* Case: Molded Plastic
- \* Terminals: Solder plated, solderable per MIL-STD-705, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.008 gram Approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



SOD-123



Dimensions in inches and (millimeters)

	SYMBOL	VALUE	UNITS
Maximum Power Dissipation @TL=50°C (Note 1)	P <sub>tot</sub>	1.0	W
Peak pulse current with a 10/1000µs waveform	V <sub>F</sub>	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air	R <sub>θJA</sub>	170	°C/W
Junction Temperature Range	T <sub>J</sub>	-55 to +175	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +175	°C

NOTES : 1. TL=Lead temperature at 3/8" (9.5mm) from body.

2. Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

Fig. 1 - POWER TEMPERATURE DERATING CURVE

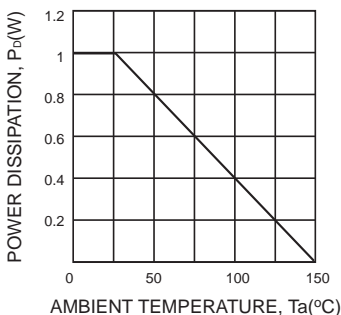


Fig. 2 - TYPICAL THERMAL RESISTANCE VERSUS LEAD LENGTH

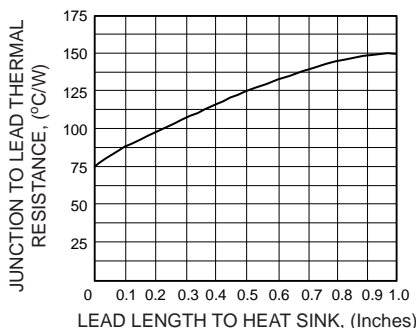
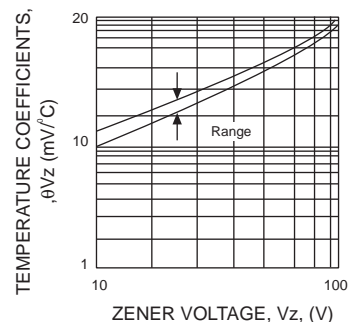


Fig. 3 - TEMPERATURE COEFFICIENTS v.s. ZENER VOLTAGE



## RATING AND CHARACTERISTIC CURVES (MMSZ4735A THRU MMSZ1200A)

TYPE	Nominal Zener Voltage $V_Z@I_{ZT}$	Zener Test Current $I_{ZT}$ mA	Maximum Zener Impedance		$I_{ZK}$ mA	Maximum Reverse Leakage Current		Surge Current @ $T_A=25^\circ\text{C}$ $i_r$ mA	Maximum Regulator Current $I_{ZM}$ mA
			$Z_{ZT}@I_{ZT}$ Ohms	$Z_{ZK}@I_{ZK}$ Ohms		$I_R$ $\mu\text{A}$	@ $V_R$ Volts		
MMSZ4735A	6.2	41.0	2.0	700	1.00	10.0	3.0	146.0	730
MMSZ4736A	6.8	37.0	3.5	700	1.00	5.0	4.0	133.0	660
MMSZ4737A	7.5	34.0	4.0	700	0.50	5.0	5.0	121.0	605
MMSZ4738A	8.2	31.0	4.5	700	0.50	5.0	6.0	110.0	550
MMSZ4739A	9.1	28.0	5.0	700	0.50	0.5	7.0	100.0	500
MMSZ4740A	10.0	25.0	7.0	700	0.25	0.5	7.6	91.0	454
MMSZ4741A	11.0	23.0	8.0	700	0.25	0.1	8.4	83.0	414
MMSZ4742A	12.0	21.0	9.0	700	0.25	0.1	9.1	76.0	380
MMSZ4743A	13.0	19.0	10	700	0.25	0.1	9.9	69.0	344
MMSZ4744A	15.0	17.0	14	700	0.25	0.1	11.4	61.0	305
MMSZ4745A	16.0	15.5	16	700	0.25	0.1	12.2	57.0	285
MMSZ4746A	18.0	14.0	20	750	0.25	0.1	13.7	50.0	250
MMSZ4747A	20.0	12.5	22	750	0.25	0.1	15.2	45.0	225
MMSZ4748A	22.0	11.5	23	750	0.25	0.1	16.7	41.0	205
MMSZ4749A	24.0	10.5	25	750	0.25	0.1	18.2	38.0	190
MMSZ4750A	27.0	9.5	35	750	0.25	0.1	20.6	34.0	170
MMSZ4751A	30.0	8.5	40	1000	0.25	0.1	22.8	30.0	150
MMSZ4752A	33.0	7.5	45	1000	0.25	0.1	25.1	27.0	135
MMSZ4753A	36.0	7.0	50	1000	0.25	0.1	27.4	25.0	125
MMSZ4754A	39.0	6.5	60	1000	0.25	0.1	29.7	23.0	115
MMSZ4755A	43.0	6.0	70	1500	0.25	0.1	32.7	22.0	110
MMSZ4756A	47.0	5.5	80	1500	0.25	0.1	35.8	19.0	95
MMSZ4757A	51.0	5.0	95	1500	0.25	0.1	38.8	18.0	90
MMSZ4758A	56.0	4.5	110	2000	0.25	0.1	42.6	16.0	80
MMSZ4759A	62.0	4.0	125	2000	0.25	0.1	47.1	14.0	70
MMSZ4760A	68.0	3.7	150	2000	0.25	0.1	51.7	13.0	65
MMSZ4761A	75.0	3.3	175	2000	0.25	0.1	56.0	12.0	60
MMSZ4762A	82.0	3.0	200	3000	0.25	0.1	62.2	11.0	55
MMSZ4763A	91.0	2.8	250	3000	0.25	0.1	69.2	10.0	50
MMSZ4764A	100.0	2.5	350	3000	0.25	0.1	76.0	9.0	45
MMSZ1110A	110.0	2.3	450	4000	0.25	0.1	83.6	8.6	40
MMSZ1120A	120.0	2.0	550	4500	0.25	0.1	91.2	7.8	37
MMSZ1130A	130.0	1.9	700	5000	0.25	0.1	98.8	7.0	34
MMSZ1150A	150.0	1.7	1000	6000	0.25	0.1	114.0	6.4	30
MMSZ1160A	160.0	1.6	1100	6500	0.25	0.1	121.6	5.8	28
MMSZ1180A	180.0	1.4	1200	7000	0.25	0.1	136.8	5.2	25
MMSZ1200A	200.0	1.2	1900	9990	0.25	0.1	152.0	4.7	22

NOTE: Standard Zener Voltage Tolerance  $\pm 5\%$

Fig. 4 - MAXIMUM SURGE POWER

