

ZENER DIODES



300mW SURFACE MOUNT ZENER DIODE / SOT-23
Electrical Characteristics (Ta = 25°C)

OPERATING TEMPERATURE -55°C to +125°C
STORAGE TEMPERATURE -55°C to +150°C

TYPE	ZENER VOLTAGE		MAX ZENER IMPEDANCE		MAX ZENER IMPEDANCE IZK = 0.25mA Zzk(ohms)	MAXIMUM REVERSE CURRENT		MARKING
	Vz(v)	@IzT(mA)	ZzT(ohms)	@IzT(mA)		@VR(V)	IR(uA)	
CMBZ5230B	4.7	20.0	19	20.0	1900	2.0	5.0	8E
CMBZ5231B	5.1	20.0	17	20.0	1600	2.0	5.0	8F
CMBZ5232B	5.6	20.0	11	20.0	1600	3.0	5.0	8G
CMBZ5233B	6.0	20.0	7	20.0	1600	3.5	5.0	8H
CMBZ5234B	6.2	20.0	7	20.0	1000	4.0	5.0	8J
CMBZ5235B	6.8	20.0	5	20.0	750	5.0	3.0	8K
CMBZ5236B	7.5	20.0	6	20.0	500	6.0	3.0	8L
CMBZ5237B	8.2	20.0	8	20.0	500	6.5	3.0	8M
CMBZ5238B	8.7	20.0	8	20.0	600	6.5	3.0	8N
CMBZ5239B	9.1	20.0	10	20.0	600	7.0	3.0	8P
CMBZ5240B	10.0	20.0	17	20.0	600	8.0	3.0	8Q
CMBZ5241B	11.0	20.0	22	20.0	600	8.4	2.0	8R
CMBZ5242B	12.0	20.0	30	20.0	600	9.1	1.0	8S
CMBZ5243B	13.0	9.5	13	9.5	600	9.9	0.5	8T
CMBZ5244B	14.0	9.0	15	9.0	600	10.0	0.1	8U
CMBZ5245B	15.0	8.5	16	8.5	600	11.0	0.1	8V
CMBZ5246B	16.0	7.8	17	8.5	600	12.0	0.1	8W
CMBZ5247B	17.0	7.4	19	7.4	600	13.0	0.1	8X
CMBZ5248B	18.0	7.0	21	7.0	600	14.0	0.1	8Y
CMBZ5249B	19.0	6.6	23	6.6	600	14.0	0.1	8Z
CMBZ5250B	20.0	6.2	25	6.2	600	15.0	0.1	81A
CMBZ5251B	22.0	5.6	29	5.6	600	17.0	0.1	81B
CMBZ5252B	24.0	5.2	33	5.2	600	18.0	0.1	81C
CMBZ5253B	25.0	5.0	35	5.0	600	19.0	0.1	81D
CMBZ5254B	27.0	4.6	41	4.6	600	21.0	0.1	81E
CMBZ5255B	28.0	4.5	44	4.5	600	21.0	0.1	81F
CMBZ5256B	30.0	4.2	49	4.2	600	23.0	0.1	81G
CMBZ5257B	33.0	3.8	58	3.8	700	25.0	0.1	81H
CMBZ5258B	36.0	3.4	70	3.4	700	27.0	0.1	81J
CMBZ5259B	39.0	3.2	80	3.2	800	30.0	0.1	81K
CMBZ5260B	43.0	3.0	93	3.0	900	33.0	0.1	18F

NOTES : Rectangular waveform (tp = 10ms)

ZENER DIODES



500mW MINI MELF ZENER DIODE / MINI MELF
Electrical Characteristics (Ta = 25°C)

OPERATING TEMPERATURE -65°C to +200°C
STORAGE TEMPERATURE -65°C to +200°C

TYPE	ZENER VOLTAGE		MAX ZENER IMPEDANCE		MAX ZENER IMPEDANCE I _{zk} = 0.25mA	MAXIMUM REVERSE CURRENT		TEMP. COEFF.
	V _z (V)	I _{zT} (mA)	Z _{zT} (ohms)	I _{zT} (mA)	Z _{zk} (ohms)	V _R (V)	I _R (uA)	dv _z (% / °C)
ZMM5221B	2.4	20.0	30	20.0	1200	1.0	100	-0.085
ZMM5222B	2.5	20.0	30	20.0	1250	1.0	100	-0.085
ZMM5223B	2.7	20.0	30	20.0	1300	1.0	75	-0.080
ZMM5224B	2.8	20.0	30	20.0	1400	1.0	75	-0.080
ZMM5225B	3.0	20.0	29	20.0	1600	1.0	50	-0.075
ZMM5226B	3.3	20.0	28	20.0	1600	1.0	25	-0.070
ZMM5227B	3.6	20.0	24	20.0	1700	1.0	15	-0.065
ZMM5228B	3.9	20.0	23	20.0	1900	1.0	10	-0.060
ZMM5229B	4.3	20.0	22	20.0	2000	1.0	5	+/-0.055
ZMM5230B	4.7	20.0	19	20.0	1900	2.0	5	+/-0.030
ZMM5231B	5.1	20.0	17	20.0	1600	2.0	5	+/-0.030
ZMM5232B	5.6	20.0	11	20.0	1600	3.0	5	+0.038
ZMM5233B	6.0	20.0	7	20.0	1600	3.5	5	+0.038
ZMM5234B	6.2	20.0	7	20.0	1000	4.0	5	+0.045
ZMM5235B	6.8	20.0	5	20.0	750	5.6	3.0	+0.050
ZMM5236B	7.5	20.0	6	20.0	500	6.0	3.0	+0.058
ZMM5237B	8.2	20.0	8	20.0	500	6.5	3.0	+0.062
ZMM5238B	8.7	20.0	8	20.0	600	6.5	3.0	+0.065
ZMM5239B	9.1	20.0	10	20.0	600	7.0	3.0	+0.068
ZMM5240B	10.0	20.0	17	20.0	600	8.0	3.0	+0.075
ZMM5241B	11.0	20.0	22	20.0	600	8.4	2.0	+0.076
ZMM5242B	12.0	20.0	30	20.0	600	9.1	1.0	+0.077
ZMM5243B	13.0	9.5	13	9.5	600	9.9	0.5	+0.079
ZMM5244B	14.0	9.0	15	9.0	600	10.0	0.1	+0.082
ZMM5245B	15.0	8.5	16	8.5	600	11.0	0.1	+0.082
ZMM5246B	16.0	7.8	17	7.8	600	12.0	0.1	+0.083
ZMM5247B	17.0	7.4	19	7.4	600	13.0	0.1	+0.084
ZMM5248B	18.0	7.0	21	7.0	600	14.0	0.1	+0.085
ZMM5249B	19.0	6.6	23	6.6	600	14.0	0.1	+0.086
ZMM5250B	20.0	6.2	25	6.2	600	15.0	0.1	+0.086
ZMM5251B	22.0	5.6	29	5.6	600	17.0	0.1	+0.087
ZMM5252B	24.0	5.2	33	5.2	600	18.0	0.1	+0.088
ZMM5253B	25.0	5.0	35	5.0	600	19.0	0.1	+0.089
ZMM5254B	27.0	4.6	41	4.6	600	21.0	0.1	+0.090
ZMM5255B	28.0	4.5	44	4.5	600	21.0	0.1	+0.091
ZMM5256B	30.0	4.2	49	4.2	600	23.0	0.1	+0.091
ZMM5257B	33.0	3.8	58	3.8	700	25.0	0.1	+0.092

ZENER DIODES



1.0W SURFACE MOUNT ZENER DIODE / MELF
Electrical Characteristics (Ta = 25°C)

OPERATING TEMPERATURE -65°C to +200°C
STORAGE TEMPERATURE -65°C to +200°C

TYPE	ZENER VOLTAGE		MAX ZENER IMPEDANCE @Izk		MAX ZENER IMPEDANCE @Izk		MAXIMUM REVERSE CURRENT		MAXIMUM REGULATOR CURRENT
	Vz(V)	IzT(mA)	ZzT(ohms)	IzT(mA)	Zzk(ohms)	Izk(mA)	VR(V)	IR(uA)	IzM(mA)
DL4728A	3.3	76.0	10.0	76.0	400	1.00	1.0	100	276
DL4729A	3.6	69.0	10.0	69.0	400	1.00	1.0	100	252
DL4730A	3.9	64.0	9.0	64.0	400	1.00	1.0	50	234
DL4731A	4.3	58.0	9.0	58.0	400	1.00	1.0	10	217
DL4732A	4.7	53.0	8.0	53.0	500	1.00	1.0	10	193
DL4733A	5.1	49.0	7.0	49.0	550	1.00	1.0	10	178
DL4734A	5.6	45.0	5.0	45.0	600	1.00	2.0	10	162
DL4735A	6.2	41.0	2.0	41.0	700	1.00	3.0	10	146
DL4736A	6.8	37.0	3.5	37.0	700	1.00	4.0	10	133
DL4737A	7.5	34.0	4.0	34.0	700	0.50	5.0	10	121
DL4738A	8.2	31.0	4.5	31.0	700	0.50	6.0	10	110
DL4739A	9.1	28.0	5.0	28.0	700	0.50	7.0	10	100
DL4740A	10.0	25.0	7.0	25.0	700	0.25	7.6	10	91
DL4741A	11.0	23.0	8.0	23.0	700	0.25	8.4	5	83
DL4742A	12.0	21.0	9.0	21.0	700	1.0	9.1	5	76
DL4743A	13.0	19.0	10.0	19.0	700	1.0	9.9	5	69
DL4744A	15.0	17.0	14.0	17.0	700	1.0	11.4	5	61
DL4745A	16.0	15.5	16.0	15.5	700	1.0	12.2	5	57
DL4746A	18.0	14.0	20.0	14.0	750	1.0	13.7	5	50
DL4747A	20.0	12.5	22.0	12.5	750	1.0	15.2	5	45
DL4748A	22.0	11.5	23.0	11.5	750	1.0	16.7	5	41
DL4749A	24.0	10.5	25.0	10.5	750	1.0	18.2	5	38
DL4750A	27.0	9.5	35.0	9.5	750	1.0	20.6	5	34
DL4751A	30.0	8.5	40.0	8.5	1000	0.5	22.8	5	30
DL4752A	33.0	7.5	45.0	7.5	1000	0.5	25.1	5	27
DL4753A	36.0	7.0	50.0	7.0	1000	0.5	27.4	5	25
DL4754A	39.0	6.5	60.0	6.5	1000	0.25	29.7	5	23
DL4755A	43.0	6.0	70.0	6.0	1500	0.25	32.7	5	22
DL4756A	47.0	5.5	80.0	5.5	1500	0.25	35.8	5	19
DL4757A	51.0	5.0	95.0	5.0	1500	0.25	38.8	5	18
DL4758A	56.0	4.5	110.0	4.5	2000	0.25	42.6	5	16
DL4759A	62.0	4.0	125.0	4.0	2000	0.25	47.1	5	14
DL4760A	68.0	3.7	150.0	3.7	2000	0.25	51.7	5	13
DL4761A	75.0	3.3	175.0	3.3	2000	0.25	56.0	5	12
DL4762A	82.0	3.0	200.0	3.0	3000	0.25	62.2	5	11
DL4763A	91.0	2.8	250.0	2.8	3000	0.25	69.2	5	10
DL4764A	100.0	2.5	350.0	2.5	3000	0.25	76.0	5	9

NOTES : Measured with Pulse Tp = 40 msec.

ZENER DIODES

1.0W SURFACE MOUNT ZENER SILICON RECTIFIER / SMX
Electrical Characteristics (Ta = 25°C)



TYPE	NOMINAL ZENER VOLTAGE	TEST CURRENT	MAXIMUM DYNAMIC IMPEDANCE			MAXIMUM DC REVERSE LEAKAGE CURRENT		MAXIMUM SURGE CURRENT	MAXIMUM FORWARD VOLTAGE
	at I _{ZT} V _Z (NOTE 1) (Volts)	I _{ZT} (mA)	Z _{ZT} at I _{ZT} (ohms)	Z _{ZK} at (ohms)	(NOTE 1) I _{ZK} (mA)	I _R (uA)	V _R (Volts)	(NOTE 2) I _{RM} (mApk)	at 200mA V _F (Volts)
FM4735W	6.2	41.0	2.0	700	1.00	50.0	3.0	730.0	1.2
FM4736W	6.8	37.0	3.5	700	1.00	10.0	4.0	660.0	1.2
FM4737W	7.5	34.0	4.0	700	0.50	10.0	5.0	605.0	1.2
FM4738W	8.2	31.0	4.5	700	0.50	10.0	6.0	550.0	1.2
FM4739W	9.1	28.0	5.0	700	0.50	10.0	7.0	500.0	1.2
FM4740W	10.0	25.0	7.0	700	0.25	10.0	7.6	454.0	1.2
FM4741W	11.0	23.0	8.0	700	0.25	5.0	8.4	414.0	1.2
FM4742W	12.0	21.0	9.0	700	0.25	5.0	9.1	380.0	1.2
FM4743W	13.0	19.0	10.0	700	0.25	5.0	9.9	344.0	1.2
FM4744W	15.0	17.0	14.0	700	0.25	5.0	11.4	305.0	1.2
FM4745W	16.0	15.5	16.0	700	0.25	5.0	12.2	285.0	1.2
FM4746W	18.0	14.0	20.0	750	0.25	5.0	13.7	250.0	1.2
FM4747W	20.0	12.5	22.0	750	0.25	5.0	15.2	225.0	1.2
FM4748W	22.0	11.5	23.0	750	0.25	5.0	16.7	205.0	1.2
FM4749W	24.0	10.5	25.0	750	0.25	5.0	18.2	190.0	1.2
FM4750W	27.0	9.5	35.0	750	0.25	5.0	20.6	170.0	1.2
FM4751W	30.0	8.5	40.0	1000	0.25	5.0	22.8	150.0	1.2
FM4752W	33.0	7.5	45.0	1000	0.25	5.0	25.1	135.0	1.2
FM4753W	36.0	7.0	50.0	1000	0.25	5.0	27.4	125.0	1.2
FM4754W	39.0	6.5	60.0	1000	0.25	5.0	29.7	115.0	1.2
FM4755W	43.0	6.0	70.0	1500	0.25	5.0	32.7	110.0	1.2
FM4756W	47.0	5.5	80.0	1500	0.25	5.0	35.8	95.0	1.2
FM4757W	51.0	5.0	95.0	1500	0.25	5.0	38.8	90.0	1.2
FM4758W	56.0	4.5	110.0	2000	0.25	5.0	42.6	80.0	1.2
FM4759W	62.0	4.0	125.0	2000	0.25	5.0	47.1	70.0	1.2
FM4760W	68.0	3.7	150.0	2000	0.25	5.0	51.7	65.0	1.2
FM4761W	75.0	3.3	175.0	2000	0.25	5.0	56.0	60.0	1.2
FM4762W	82.0	3.0	200.0	3000	0.25	5.0	62.2	55.0	1.2
FM4763W	91.0	2.0	250.0	3000	0.25	5.0	69.2	50.0	1.2

- NOTES : 1. Standard voltage tolerance is 10%, Suffix " A " : ± 5%
 2. Surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC Method
 3. Maximum steady state power dissipation is 1.0 watt at T_L = 75°C