

# Surface Mount Zener Diode

## ZMM55C Series

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

Electrical Characteristics ( $T_A = 25^\circ\text{C}$  unless otherwise specified)

500mW

Type Number	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current (Note 2)		Temperature Coefficient of Zener Voltage @ $I_{ZT} = 5\text{ mA}$ $\text{mV}/^\circ\text{C}$	
	$V_Z$			$@I_{ZT}$	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$		$I_R @ V_R$		Min	Max
	Min	Nom	Max			$\Omega$	$\Omega$	mA	$\mu\text{A}$		
	V	V	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	V	Min	Max
ZMM55C2V0	1.9	2.0	2.1	5	100	600	1.0	50	1.0	-3.5	0
ZMM55C2V2	2.1	2.2	2.3	5	100	600	1.0	50	1.0	-3.5	0
ZMM55C2V4	2.2	2.4	2.6	5	85	600	1.0	50	1.0	-3.5	0
ZMM55C2V7	2.5	2.7	2.9	5	85	600	1.0	10	1.0	-3.5	0
ZMM55C3V0	2.8	3.0	3.2	5	85	600	1.0	4	1.0	-3.5	0
ZMM55C3V3	3.1	3.3	3.5	5	85	600	1.0	2	1.0	-3.5	0
ZMM55C3V6	3.4	3.6	3.8	5	85	600	1.0	2	1.0	-3.5	0
ZMM55C3V9	3.7	3.9	4.1	5	85	600	1.0	2	1.0	-3.5	0
ZMM55C4V3	4.0	4.3	4.6	5	75	600	1.0	1	1.0	-3.5	0
ZMM55C4V7	4.4	4.7	5.0	5	60	600	1.0	0.5	1.0	-3.5	0.2
ZMM55C5V1	4.8	5.1	5.4	5	35	550	1.0	0.1	1.0	-2.7	1.2
ZMM55C5V6	5.2	5.6	6.0	5	25	450	1.0	0.1	1.0	-2.0	2.5
ZMM55C6V2	5.8	6.2	6.6	5	10	200	1.0	0.1	2.0	0.4	3.7
ZMM55C6V8	6.4	6.8	7.2	5	8	150	1.0	0.1	3.0	1.2	4.5
ZMM55C7V5	7.0	7.5	7.9	5	7	50	1.0	0.1	5.0	2.5	5.3
ZMM55C8V2	7.7	8.2	8.7	5	7	50	1.0	0.1	6.0	3.2	6.2
ZMM55C9V1	8.5	9.1	9.6	5	10	50	1.0	0.1	7.0	3.8	7.0
ZMM55C10	9.4	10	10.6	5	15	70	1.0	0.1	7.5	4.5	8.0
ZMM55C11	10.4	11	11.6	5	20	70	1.0	0.1	8.5	5.4	9.0
ZMM55C12	11.4	12	12.7	5	20	90	1.0	0.1	9.0	6.0	10.0
ZMM55C13	12.4	13	14.1	5	26	110	1.0	0.1	10	7.0	11.0
ZMM55C15	13.8	15	15.8	5	30	110	1.0	0.1	11	9.2	13.0
ZMM55C16	15.3	16	17.1	5	40	170	1.0	0.1	12	10.4	14.0
ZMM55C18	16.8	18	19.1	5	50	170	1.0	0.1	14	12.4	16.0
ZMM55C20	18.8	20	21.2	5	55	220	1.0	0.1	15	14.4	18.0
ZMM55C22	20.8	22	23.3	5	55	220	1.0	0.1	17	16.4	20.0
ZMM55C24	22.8	24	25.6	5	80	220	1.0	0.1	18	18.4	22.0
ZMM55C27	25.1	27	28.9	5	80	220	1.0	0.1	20	21.4	25.3
ZMM55C30	28	30	32.0	5	80	220	1.0	0.1	22	24.4	29.4
ZMM55C33	31	33	35.0	5	80	220	1.0	0.1	24	27.4	33.4
ZMM55C36	34	36	38.0	5	80	220	1.0	0.1	27	30.4	37.4
ZMM55C39	37	39	41.0	2.5	90	500	1.0	0.1	30	33.4	41.2
ZMM55C43	40	43	46.0	2.5	90	600	1.0	0.1	33	10.0	12.0
ZMM55C47	44	47	50.0	2.5	110	700	1.0	0.1	36	10.0	12.0
ZMM55C51	48	51	54.0	2.5	100	750	1.0	0.1	38	10.0	12.0
ZMM55C56	52	56	60.0	2.5	135	1000	1.0	0.1	42	10.0	12.0

Standard Voltage Tolerance is  $\pm 5\%$  and :

Suffix "A" for  $\pm 1\%$

Suffix "B" for  $\pm 2\%$

Suffix "C" for  $\pm 5\%$

Suffix "D" for  $\pm 20\%$

Measured with Pulses  $T_p=40\text{m Sec}$

### Absolute Maximum Ratings

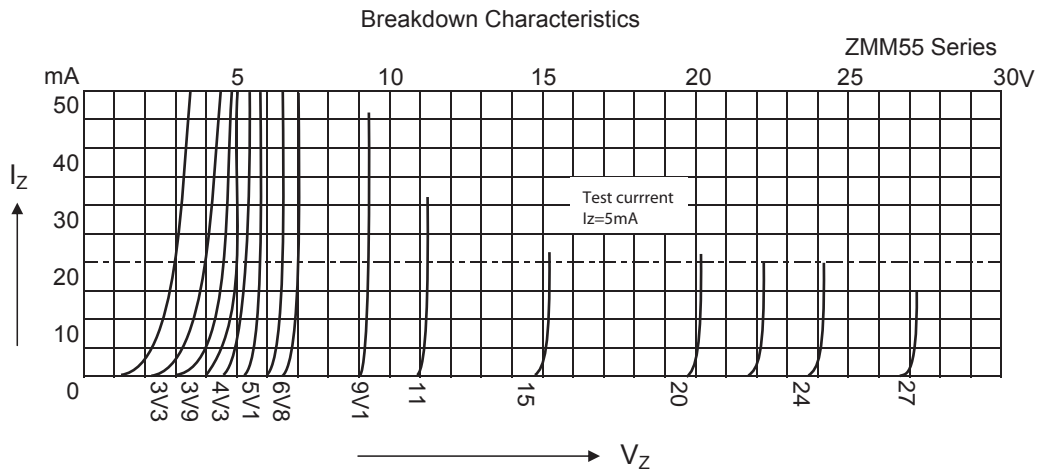
Items	Symbol	Value	Unit
Power Dissipation at Tamb=25	$P_{TOT}$	500 *	mW
Junction Temperature	$T_J$	175	
Storage Temperature Range	$T_{STG}$	-65 ~ +175	

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

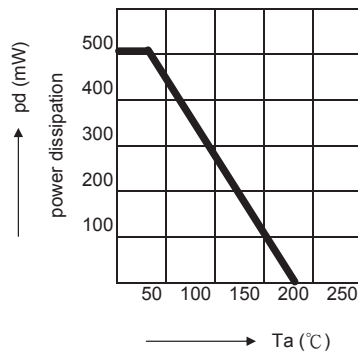
### Characteristic at Tamb=25

Items	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	-	-	0.3 *	K / mW
Forward Voltage @ $I_F=200mA$	$V_F$	-	-	1.0	V

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



Change in the power dissipation due to the ambient temperature.



Ambient Temperature.

### Mechanical Data

Items	Materials	
Package	Mini MELF	
Case	Hermetically sealed glass	
Lead Finish	Solder Plating	
Packaging Dimensions (mm)		
Symbol	Min	Max
A	3.302	3.505
B	1.397	1.499
C	0.350	0.500

### MINI MELF

