

CMOZ2V4C THRU CMOZ43VC

**SURFACE MOUNT ULTRAmi™  
SILICON ZENER DIODE  
2.4 VOLTS THRU 43 VOLTS  
2% TOLERANCE**

**ULTRAmi™**



**SOD-523 CASE**

**Central™  
Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMOZ2V4C Series Zener Diode is a high quality voltage regulator in an epoxy-molded ULTRAmi™ package, designed for applications requiring low leakage.

**MARKING CODE: CONSULT FACTORY**

**ABSOLUTE MAXIMUM RATINGS:**

Power Dissipation ( $T_A=50^\circ\text{C}$ ) (Note 1)  
Power Dissipation ( $T_A=25^\circ\text{C}$ ) (Note 2)  
Power Dissipation ( $T_A=25^\circ\text{C}$ ) (Note 3)  
Operating and Storage Temperature  
Thermal Resistance ( $P_D=300\text{ mW}$ )

**SYMBOL**

$P_D$  350  
 $P_D$  300  
 $P_D$  250  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  417

**UNIT**

mW  
mW  
mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ ),  $V_F=0.9\text{ MAX @ }I_F=10\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$ mA	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$ $\Omega$	MAXIMUM REVERSE CURRENT $I_R @ V_R$	
	MIN	NOM	MAX			$\mu\text{A}$	V
	V	V	V				
CMOZ2V4C	2.35	2.4	2.45	5.0	100	25	1.0
CMOZ2V6C	2.55	2.6	2.65	5.0	100	25	1.0
CMOZ2V7C	2.65	2.7	2.75	5.0	100	10	1.0
CMOZ3V0C	2.94	3.0	3.06	5.0	95	5.0	1.0
CMOZ3V3C	3.23	3.3	3.37	5.0	95	2.0	1.0
CMOZ3V6C	3.53	3.6	3.67	5.0	90	2.0	1.0
CMOZ3V9C	3.82	3.9	3.98	5.0	90	2.0	1.0
CMOZ4V3C	4.21	4.3	4.39	5.0	90	1.0	1.0
CMOZ4V7C	4.61	4.7	4.79	5.0	80	3.0	2.0
CMOZ5V1C	5.00	5.1	5.20	5.0	60	2.0	2.0
CMOZ5V6C	5.49	5.6	5.71	5.0	40	1.0	2.0
CMOZ6V2C	6.08	6.2	6.32	5.0	10	3.0	4.0
CMOZ6V8C	6.66	6.8	6.94	5.0	15	2.0	4.0
CMOZ7V5C	7.35	7.5	7.65	5.0	15	1.0	5.0
CMOZ8V2C	8.04	8.2	8.36	5.0	15	0.7	5.0
CMOZ9V1C	8.92	9.1	9.28	5.0	15	0.5	6.0

Notes: (1) Ceramic or aluminum core PC Board with copper mounting pad area of  $4.0\text{ mm}^2$   
(2) FR-4 Epoxy PC Board with copper mounting pad area of  $4.0\text{ mm}^2$   
(3) FR-4 Epoxy PC Board with copper mounting pad area of  $1.4\text{ mm}^2$

R0 (10-June 2008)

**ELECTRICAL CHARACTERISTICS - Continued:**

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT	
	MIN	NOM	MAX	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$I_R @ V_R$	
	V	V	V	mA	$\Omega$	$\mu A$	V
CMOZ10VC	9.80	10	10.20	5.0	20	0.2	7.0
CMOZ11VC	10.78	11	11.22	5.0	20	0.1	8.0
CMOZ12VC	11.76	12	12.24	5.0	25	0.1	8.0
CMOZ13VC	12.74	13	13.26	5.0	30	0.1	8.0
CMOZ15VC	14.70	15	15.30	5.0	30	0.05	10.5
CMOZ16VC	15.68	16	16.32	5.0	40	0.05	11.2
CMOZ18VC	17.64	18	18.36	5.0	45	0.05	12.6
CMOZ20VC	19.60	20	20.40	5.0	55	0.05	14.0
CMOZ22VC	21.56	22	22.44	5.0	55	0.05	15.4
CMOZ24VC	23.52	24	24.48	5.0	70	0.05	16.8
CMOZ27VC	26.46	27	27.54	5.0	80	0.05	18.9
CMOZ30VC	29.40	30	30.60	5.0	80	0.05	21.0
CMOZ33VC	32.34	33	33.66	5.0	80	0.05	23.1
CMOZ36VC	35.28	36	36.72	5.0	90	0.05	25.2
CMOZ39VC	38.22	39	39.78	5.0	130	0.05	27.3
CMOZ43VC	42.14	43	43.86	5.0	150	0.05	30.1

**SOD-523 CASE - MECHANICAL OUTLINE**

