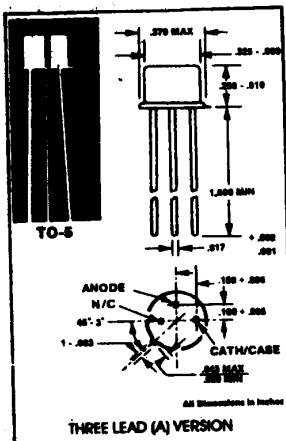




VERY HIGH VOLTAGE CURRENT REGULATOR FIELD EFFECT DIODES

CIL-500/022
TO
CIL-500/680



- 300 VOLTS POV
- VERY HIGH DYNAMIC IMPEDANCE
- HERMETICALLY SEALED TO CASE

COND	SYMBOL	VALUE	UNITS
$T_J - 55^\circ \text{ to } +200^\circ$	POV	300	Volts
25°C (Note 2)	P_D	1.5 8.6	W mW/°C
Temp Range	T_J, T_{stg}	-55 to +200	°C

ELECTRICAL SPECIFICATION: $T_A = 25^\circ\text{C}$ unless otherwise noted

Type No. CIL-500/	Regulator Current I_L (mA) $-V_L = 25V$ (1)			Typical Dynamic Impedance $-V_L = 25V$ Z_0 (k Ω)	Typical Knee Impedance $-V_L = 8.0V$ Z_0 (k Ω)	Maximum Limiting Voltage $-I_L = 0.8 I_L$ (min) V_L (Volts)
	nom	min	max			
022	0.22	0.198	0.242	-10	10	1.0
024	0.24	0.216	0.264	-10	10	1.1
027	0.27	0.243	0.297	-10	10	1.1
030	0.30	0.270	0.330	-10	10	1.1
033	0.33	0.297	0.363	-10	10	1.1
039	0.39	0.351	0.429	-10	10	1.2
043	0.43	0.387	0.473	-10	10	1.2
047	0.47	0.423	0.517	-10	9	1.2
056	0.56	0.504	0.616	-10	7	1.3
062	0.62	0.558	0.682	-10	6	1.3
066	0.66	0.612	0.748	-10	4.4	1.3
075	0.75	0.675	0.825	-10	4.3	1.6
082	0.82	0.738	0.902	10	4.1	1.5
091	0.91	0.819	1.001	10	4.0	1.6
100	1.00	0.900	1.100	8	3.0	1.7
110	1.10	0.990	1.210	7	1.6	1.7
120	1.20	1.080	1.320	6	1.0	1.7
130	1.30	1.170	1.430	6.6	0.6	2.0
140	1.40	1.260	1.540	6.3	0.5	2.2
150	1.50	1.350	1.650	6.0	0.5	2.4
160	1.60	1.440	1.760	5.0	0.4	2.6
180	1.80	1.620	1.980	5.0	0.3	2.9
200	2.00	1.800	2.200	5.0	0.3	3.0
220	2.20	1.980	2.420	5.0	0.2	3.1
240	2.40	2.160	2.640	5.0	0.2	3.1
270	2.70	2.430	2.970	5.0	0.1	3.3
300	3.00	2.700	3.300	5.0	50k Ω	3.4
330	3.30	2.970	3.630	5.0	25k Ω	3.6
360	3.60	3.240	3.960	5.0	10k Ω	3.6
390	3.90	3.510	4.290	5.0	11k Ω	3.7
430	4.30	3.870	4.730	2.5	8k Ω	3.8
470	4.70	4.230	5.170	100k Ω	5k Ω	4.0
510	5.10	4.590	5.616	80k Ω	5k Ω	4.3
560	5.60	5.040	6.160	75k Ω	4k Ω	4.9
620	6.20	5.580	6.820	70k Ω	4k Ω	5.5
680	6.80	6.120	7.480	64k Ω	3k Ω	6.2

NOTES:

- (1) Measure with 300 μ s, 2% duty cycle pulse.
- (2) POV of CIL-500/510 thru CIL-500/680 is limited by the 1.5 W maximum P_D . Maximum allowable dissipation can be increased to 2 watts by using a clip-on heat dissipator (Wakefield Engineering 204C8 or equivalent). This will allow a higher POV and/or a higher operating ambient temperature.
 - a. Do not exceed 300 Volts POV
 - b. Derate at 11.4 mW/°C at ambients above 25°C.