



**ECONOMY LINE
CURRENT REGULATOR
FIELD EFFECT DIODES**

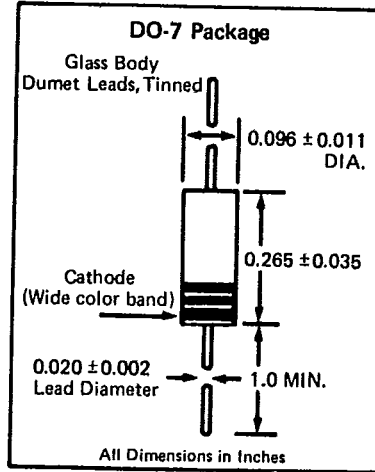
CIL-1300
thru
CIL-1305

GEOMETRY 465 or 507

- CURRENT CONSTANT OVER WIDE VOLTAGE RANGE
- HIGH SOURCE IMPEDANCE
- CONNECT IN PARALLEL FOR HIGHER CURRENT

MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNITS
Peak Operating Voltage (T _J = -55°C to +200°C)	POV	SEE TABLE	Volts
Steady State Power Dissipation @T _L = 75°C Derate above T _L = 75°C Lead Length = 3/8" (Forward or Reverse Bias)	P _D	600 4.8	mW mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-55 to +200	°C



ELECTRICAL SPECIFICATIONS: T_A = 25°C unless otherwise noted

Type No. CIL	Regulator Current I _P (mA) @ V _T = 25 V (1)			Minimum Dynamic Impedance @ V _T = 25V Z _T (KΩ)	Minimum Knee Impedance @ V _K = 6.0 V Z _K (KΩ)	Maximum Limiting Voltage @ I _L = 0.8 I _P (min) V _L (Volts)	POV Peak OP. Volt
	nom	min	max				
1300	0.5	0.2	0.8	1150	335	1.0	75
1301	1.0	0.4	1.6	510	105	1.5	75
1302	2.0	1.4	2.6	345	44	2.0	75
1303	3.0	2.4	3.6	280	24	2.0	75
1304	4.0	3.4	4.6	245	14	2.5	75
1305	5.0	4.3	5.7	175	8	3.7	75

(1) Measure with 300 nS, 2% duty cycle pulse

Crystalonics current regulator diodes are basically N channel junction field effect transistors with on-chip metalization shorting the gate to the source. This short maintains V_{GS} at zero volts and when the device is operated with a drain voltage greater than pinch off (six volts), the inherent constant current characteristic with high impedance can be used advantageously.

These economy devices use the same exclusive "C" bend construction as our standard JAN-TX line. This construction greatly improves the reliability under thermal and mechanical stress conditions.