

- CURRENT REGULATOR CHIPS
- ALL JUNCTIONS COMPLETELY PROTECTED WITH SILICON DIOXIDE
- CONSTANT CURRENT OVER WIDE VOLTAGE RANGE
- HIGH SOURCE IMPEDANCE
- COMPATIBLE WITH ALL WIRE BONDING AND DIE ATTACH TECHNIQUES, WITH THE EXCEPTION OF SOLDER REFLOW

CCR250 thru CCR257

### MAXIMUM RATINGS

Operating Temperature: -55°C to +175°C  
Storage Temperature: -55°C to +175°C

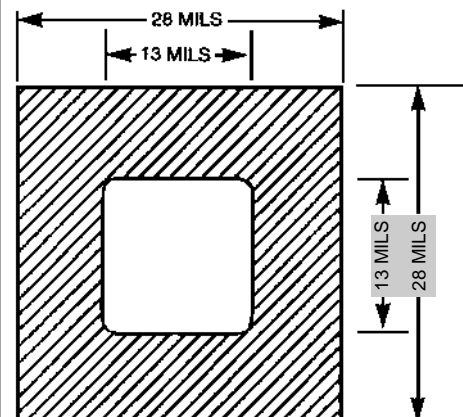
ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

TYPE NUMBER	REGULATOR CURRENT I <sub>p</sub> (mA) @ V <sub>S</sub> = 25V			MINIMUM DYNAMIC IMPEDANCE @ V <sub>S</sub> = 25V Z <sub>S</sub> (KΩ) (Note 2)	MINIMUM KNEE IMPEDANCE @ V <sub>K</sub> = 6.0 V Z <sub>K</sub> (KΩ) (Note 3)	MAXIMUM LIMITING VOLTAGE @ I <sub>L</sub> = 0.8 I <sub>p</sub> (min) V <sub>L</sub> (VOLTS)	PEAK OPERATING VOLTAGE VOLTS
	NOM	MIN	MAX				
CCR250	5.10	4.59	5.61	100	4.0	3.67	80
CCR251	5.60	5.04	6.16	90	4.0	4.03	80
CCR252	6.20	5.58	6.82	80	3.0	4.46	70
CCR253	6.80	6.12	7.48	70	2.0	4.90	70
CCR254	7.50	6.75	8.25	50	1.5	5.40	60
CCR255	8.20	7.38	9.02	30	1.5	5.90	60
CCR256	9.10	8.19	10.01	20	1.0	6.55	50
CCR257	10.00	9.00	11.10	10	1.0	7.20	50

**NOTE 1** I<sub>p</sub> is read using a pulse measurement, 10 milliseconds maximum.

**NOTE 2** Z<sub>S</sub> is derived by superimposing A 90Hz RMS signal equal to 10% of V<sub>S</sub> on V<sub>S</sub>

**NOTE 3** Z<sub>K</sub> is derived by superimposing A 90Hz RMS signal equal to 10% of V<sub>K</sub> on V<sub>K</sub>



Backside is Cathode  
A = Anode

### DESIGN DATA

#### METALLIZATION:

Top: (Anode).....Al  
Back: (Cathode).....Au

AL THICKNESS.....25,000 Å Min

GOLD THICKNESS .....4,000 Å Min

CHIP THICKNESS .....10 Mils

#### TOLERANCES: ALL Dimensions

± 2 mils, except Anode Pad where  
tolerance is ± 0.1 mils.



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