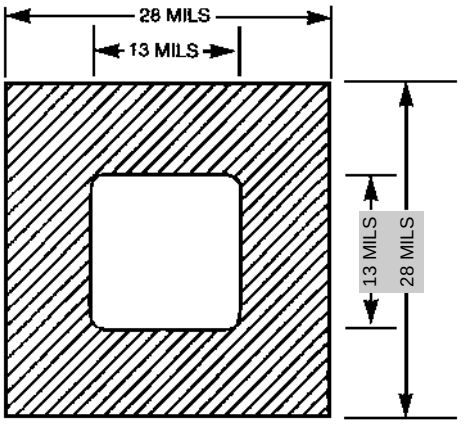
- **CURRENT REGULATOR CHIPS**
- **ALL JUNCTIONS COMPLETELY PROTECTED WITH SILICON DIOXIDE**
- **CONSTANT CURRENT OVER WIDE VOLTAGE RANGE**
- **HIGH SOURCE IMPEDANCE**
- **COMPATIBLE WITH ALL WIRE BONDING AND DIE ATTACH TECHNIQUES, WITH THE EXCEPTION OF SOLDER REFLOW**

# CCR250 thru CCR257

## MAXIMUM RATINGS

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




Backside is Cathode
A = Anode

**ELECTRICAL CHARACTERISTICS** @ 25°C, unless otherwise specified

| TYPE NUMBER | REGULATOR CURRENT I p (mA) @ $V_S$ = 25V | | | MINIMUM DYNAMIC IMPEDANCE @$V_S$ = 25V $Z_S$ (KΩ) | MINIMUM KNEE IMPEDANCE @$V_K$ = 6.0 V $Z_K$(KΩ) | MAXIMUM LIMITING VOLTAGE @ $I_L$ = 0.8 I p (min) | PEAK OPERATING VOLTAGE |
|---|---|---|---|---|---|---|---|
| | NOM | MIN | MAX | (Note 2) | (Note 3) | $V_L$ (VOLTS) | VOLTS |
| **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** $I_P$ is read using a pulse measurement, 10 milliseconds maximum.

**NOTE 2** $Z_S$ is derived by superimposing A 90Hz RMS signal equal to 10% of $V_S$ on $V_S$

**NOTE 3** $Z_K$ is derived by superimposing A 90Hz RMS signal equal to 10% of $V_K$ on $V_K$

## 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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