

- CURRENT REGULATOR DIODES
- CONSTANT CURRENT OVER WIDE VOLTAGE RANGE
- HIGH SOURCE IMPEDANCE
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

DCR250
thru
DCR257

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
DC Power Dissipation: 500 mW @ +50°C @ $T_L = 3/8"$
Power Derating: 4 mW / °C above +50°C

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

TYPE NUMBER	REGULATOR CURRENT I_p (mA) @ $V_S = 25V$ (Note 1)			MINIMUM DYNAMIC IMPEDANCE @ $V_S = 25V$ Z_S (K) (Note 2)	MINIMUM KNEE IMPEDANCE @ $V_K = 6.0 V$ Z_K (K) (Note 3)	MAXIMUM LIMITING VOLTAGE @ $I_L = 0.8 I_p$ (min) V_L (VOLTS)	PEAK OPERATING VOLTAGE VOLTS
	NOM	MIN	MAX				
DCR250	5.10	4.59	5.61	100	4.0	3.67	80
DCR251	5.60	5.04	6.16	90	4.0	4.03	80
DCR252	6.20	5.58	6.82	80	3.0	4.46	70
DCR253	6.80	6.12	7.48	70	2.0	4.90	70
DCR254	7.50	6.75	8.25	50	1.5	5.40	60
DCR255	8.20	7.38	9.02	30	1.5	5.90	60
DCR256	9.10	8.19	10.01	20	1.0	6.55	50
DCR257	10.00	9.00	11.10	10	1.0	7.20	50

NOTE 1 Pulse measurement @ 1% duty cycle, 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

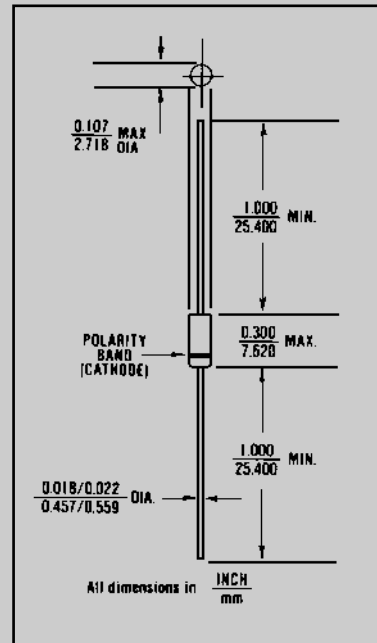


FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case. DO-7 outline.

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\theta JEC}$): 250 °C/W maximum at $L = .375$ inch

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 25 °C/W maximum

POLARITY: Diode to be operated with the banded (cathode) end negative.

MOUNTING POSITION: Any



6 LAKE STREET, LAWRENCE, MASSACHUSETTS 01841
PHONE (978) 620-2600
WEBSITE: <http://www.microsemi.com>

FAX (978) 689-0803