RAYTHEON

TECHNICAL INFORMATION

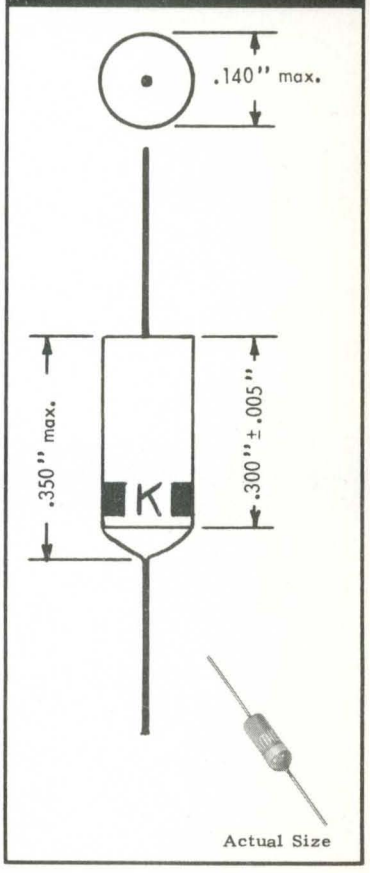
GERMANIUM POINT CONTACT DIODE

Excellence in Electronics

TYPE 1N297

(CK707)

The 1N297 is a hermetically sealed point contact germanium diode designed for use in 5 to 50 volt DC restorer rectifier applications. The 1N297 is particularly applicable where high back resistance, small size, absence of heater voltage, low-shunt capacitance and resistance to changes in humidity and temperature * are important. Operable at temperatures up to 100°C, it can be operated as high as 125°C with no irreversible change in characteristics. Each diode is dynamically tested for hysteresis, drift, and flutter. The 1N297 has extremely uniform electrical characteristics and reliable mechanical stability.



MECHANICAL DATA

TERMINALS: Dumet wire, Tinned to within 1/8 "of barrel Diameter: 0.017" max. Length: 1" min.

TERMINAL CONNECTIONS: White Band at Cathode Terminal

MOUNTING POSITION: Any

PLUG-IN EQUIVALENT: Available as 1N297-P

ELECTRICAL DATA

RATINGS - ABSOLUTE MAXIMUM VALUES: (at 25°C)

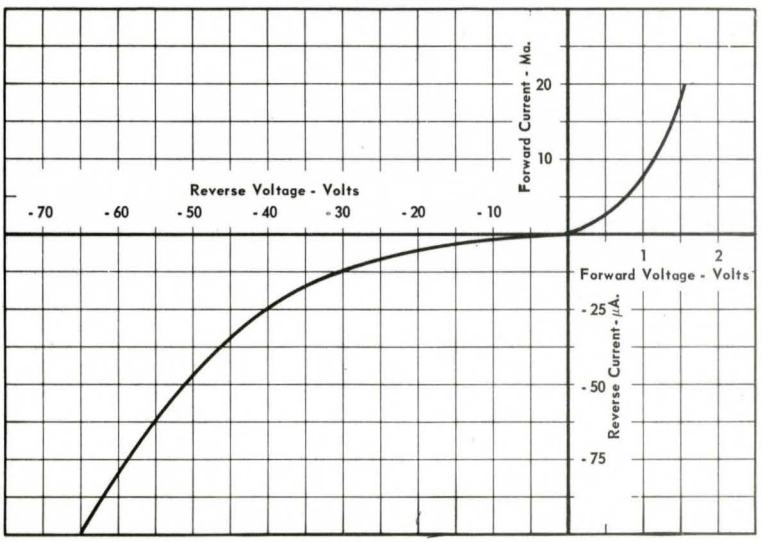
Inverse Voltage	80 volts
Average Rectified Current	35 ma.
Peak Rectified Current	100 ma.
Surge Current (for 1 sec.)	500 ma.
Ambient Temperature Range	-50 to +100 °C
Dissipations at:	
25°C	80 mw.
50°C	65 mw.
75°C	50 mw.
100°C	30 mw.

CHARACTERISTICS: (at 25°C)

Maximum Inverse Current at -5 volts	10 μa.
Maximum Inverse Current at -50 volts	100 μa.
Minimum Forward Current at +1 volt	3.5 ma.
Shunt Capacitance	1.0 μμfd.
Minimum Reverse Voltage for Zero Dynamic Resistance	100 volts

* *Each diode receives repeated humidity cycling, and additional temperature cycling ranging from -25° C to 130° C.*

TYPICAL STATIC CHARACTERISTICS (at 25°C)



Tentative Data