HIGH POWER DUAL DIODE LIMITER

- **Dual Plated Heat Sink and Planar Structure for Higher CW and Pulsed Power**
- **Power Rating up to 50 watts CW and 500 Watts Peak, with 10μS Pulse Width and .001% Duty Cycle**
- **Available in Chip Form or Stripline Package Style (115-2 Copper Package)**
- **Very Low Thermal Impedance and High Isolation**

DESCRIPTION

High power switching limiter PIN diodes are now available incorporating our proprietary plated heatsink process. The power rating for these devices are up to 50 watts CW and 500 watts pulsed power (10μS pulse width and a .001 duty cycle). The plated heatsink structure with dual chip configuration provides very low thermal impedance for CW operation and its' planar construction provides a larger heat capacity required for pulse power operation. The diode utilizes high quality, high resistivity, epitaxy process technology thus assuring low insertion loss, high isolation and fast recovery time. These chips are passivated with a special high voltage glassivation process resulting in a very stable low leakage device.

APPLICATIONS

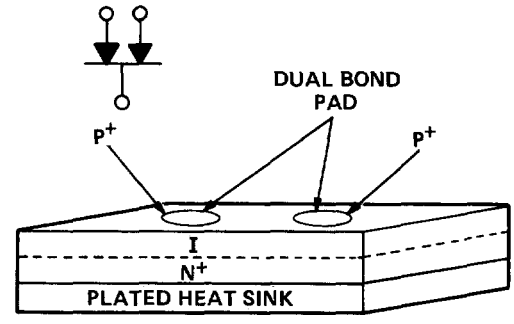
These high power limiter diodes are used as semi-active limiters for protection of sensitive receiver components such as low noise amplifiers, mixers and detectors and for handling very large CW and pulse powers through Ku band. These high power limiter diodes are designed to be driven by Schottky diodes to improve the power handling and isolation characteristics. Thin basewidth passive clean-up diodes can be used to improve the overall leakage performance of the limiter in conjunction with these diode chips. (See Fig. 2)

ELECTRICAL SPECIFICATIONS at 25°C

MODEL NUMBER	BREAKDOWN VOLTAGE (I_R=10μA) V_B (MIN)(Volts)	JUNCTION[1] CAPACITANCE (V_R=50V) C_J (MAX)(pF)	SERIES[1] RESISTANCE (50mA, 100MHz) R_S (MAX)(Ohms)	CARRIER LIFETIME (I_R=6mA, I_F=10mA) T_L (TYP)(ns)	PARALLEL RESISTANCE (V_R=0, F=1GHz) RP (MIN)(KOhms)	THERMAL RESISTANCE (MAX) (°C/W)	PACKAGE STYLE
GC4750	300	0.25	0.8	300	10	10	115-2

1) The parameter is the sum of two junctions.

Also available in Chip form and Metal Ceramic packages.



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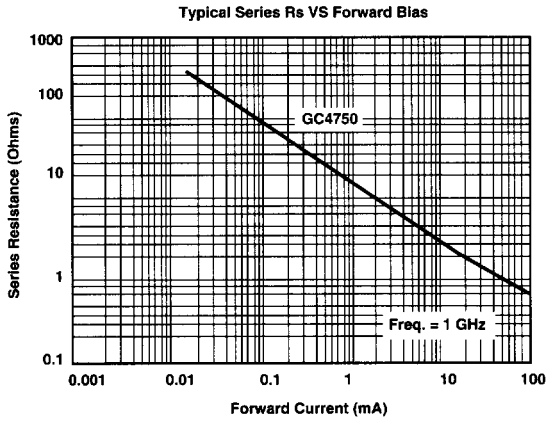
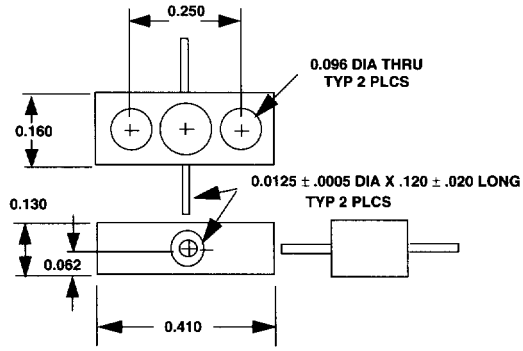
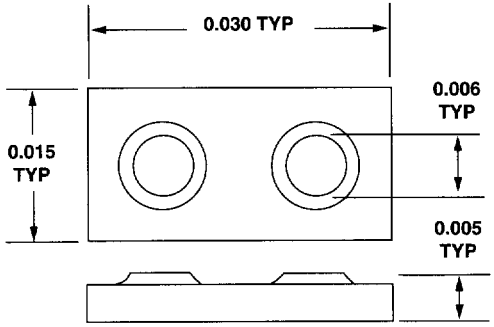
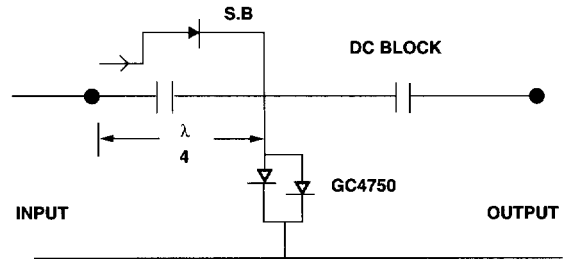






DUAL PLATED HEAT SINK
CONSULT FACTORY FOR DIFFERENT SIZES



SCHOTTKY BARRIER TYPES GC9700, LSS701 RECOMMENDED

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