

SILICON STEP RECOVERY DIODE

DESCRIPTION:

The **ASI 5082-0800** is a Silicon Step Recovery Diode Designed as a Frequency Multiplier with S-Band Output Frequencies.

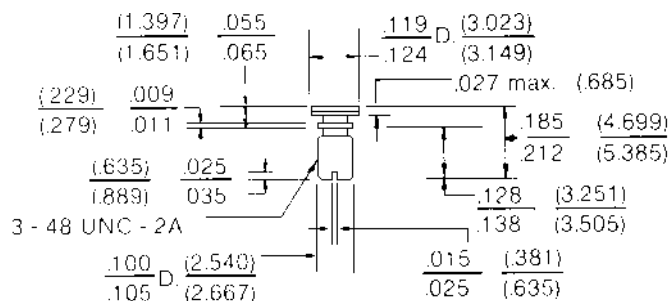
FEATURES INCLUDE:

- Replacement for **HP 5082-0800**
- $P_{OUT} = 10 \text{ W typ. @ } 4 \text{ GHz (X 2)}$
- Hermetic Package

MAXIMUM RATINGS

| | |
|---------------|---|
| I_F | 100 mA |
| P_{DISS} | 7.0 W @ $T_C = 25^\circ\text{C}$ |
| T_J | -65°C to $+150^\circ\text{C}$ |
| T_{STG} | -65°C to $+150^\circ\text{C}$ |
| θ_{JC} | 15 $^\circ\text{C/W}$ |

PACKAGE STYLE 50



CHARACTERISTICS $T_A = 25^\circ\text{C}$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|----------|--|---------|---------|---------|---------------|
| V_{BR} | $I_R = 10 \mu\text{A}$ | 75 | | | V |
| C_{j6} | $V_R = 6 \text{ V}$ $f = 1.0 \text{ MHz}$ | 3.5 | | 5.0 | pF |
| f_c | | 100 | | | GHz |
| τ | $I_F = 10 \text{ mA}$ $I_R = 6 \text{ mA}$ | 200 | | | μS |
| t_i | Charge Level = 1000 pC, measured at 20% & 80% points | | | 400 | pS |