

SILICON STEP RECOVERY DIODE

DESCRIPTION:

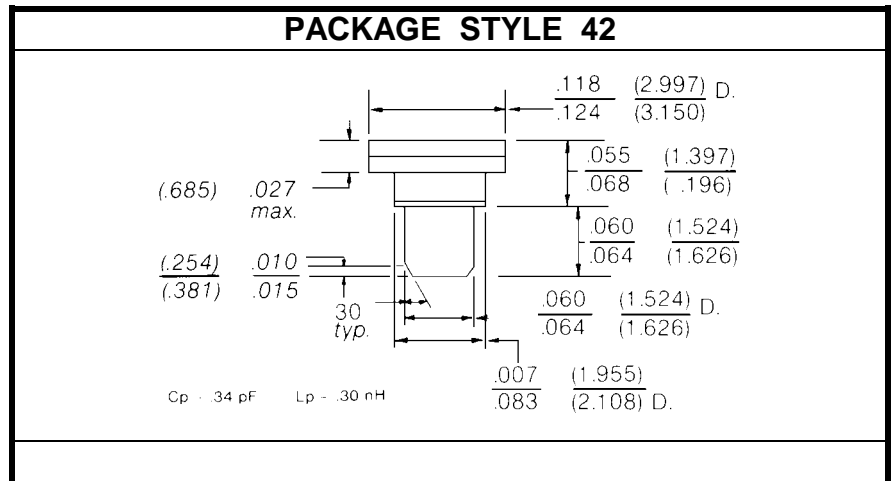
The **ASI 5082-0310** is a Silicon Step Recovery Diode Designed as a X 8 Frequency Multiplier with X-Band Output Frequencies.

FEATURES INCLUDE:

- Replacement for **HP 5082-0310**
- $P_{OUT} = 400 \text{ mW min. @ } 6 \text{ GHz (X 10)}$
- Hermetic Package

MAXIMUM RATINGS

| | |
|---------------|--|
| I_F | 100 mA |
| P_{DISS} | 4.1 W @ $T_C = 25^\circ\text{C}$ |
| T_J | $-65^\circ\text{C to } +150^\circ\text{C}$ |
| T_{STG} | $-65^\circ\text{C to } +150^\circ\text{C}$ |
| θ_{JC} | 30 $^\circ\text{C/W}$ |



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

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-----------|---|---------|---------|---------|---------------|
| V_{BR} | $I_R = 10 \mu\text{A}$ | 40 | | 80 | V |
| C_{j10} | $V_R = 10 \text{ V}$ $f = 1.0 \text{ MHz}$ | 1.6 | | 2.7 | pF |
| τ | $I_F = 10 \text{ mA}$ $I_R = 6 \text{ mA}$ | | 75 | | μS |
| t_t | Charge Level = 1000 pC, measured at 20% & 80% points | | 160 | | pS |
| P_{OUT} | $P_{IN} = 4.0 \text{ W}$ $F_{IN} = 0.6 \text{ GHz}$ $F_{OUT} = 6.0 \text{ GHz}$ | 400 | | | mW |