

SILICON STEP RECOVERY DIODE

DESCRIPTION:

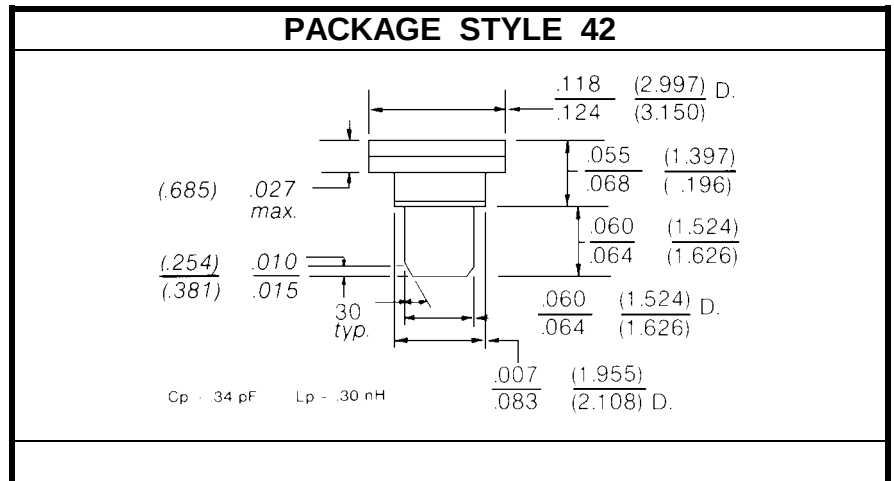
The **ASI 5082-0310** is a Silicon Step Recovery Diode Designed as a X 8 Frequency Multiplier with X-Band Output Frequencies.

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