

SILICON SCHOTTKY BARRIER DIODE

DESCRIPTION:

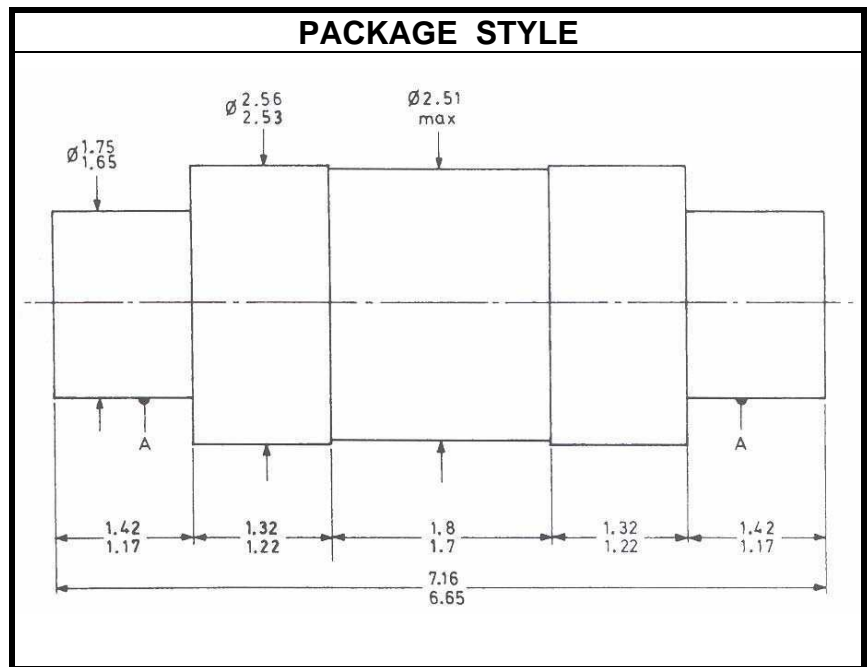
The **ASI BAT39** is a silicon Schottky barrier mixer diode, Designed for use in X frequency band Applications.

FEATURES INCLUDE:

- Low R_S —5.0 Ω
- Low NF 6.0 Db Typ.
- Frequency Range 26 to 40 GHz
- Available as Matched pairs by adding the MP to the part number. Matching criteria is $\pm 10\%$ on rectified current and within 150 Ω i.f. impedance.

MAXIMUM RATINGS

V_R	2.0 V
P_{DISS}	250 mW @ $T_C = 25^\circ C$
T_J	-55 $^\circ C$ to +100 $^\circ C$
T_{STG}	-55 $^\circ C$ to +100 $^\circ C$


CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIM	UNITS
V_R	$I_R = 10 \mu A$	2.0			V
V_F	$I_F = 1.0 \text{ mA}$			0.29	V
I_F	$V_F = 0.5 \text{ V}$		7.0		mA
I_R	$V_R = 0.5 \text{ V}$			2.0	μA
C_T	$V_R = 0 \text{ V}$ $f = 1.0 \text{ MHz}$.27		pF
NF	$I_F = 0.5 \text{ mA}$ $f = 30 \text{ GHz}$		6.0		dB