

# MEDIUM BARRIER SCHOTTKY DIODE

## DESCRIPTION:

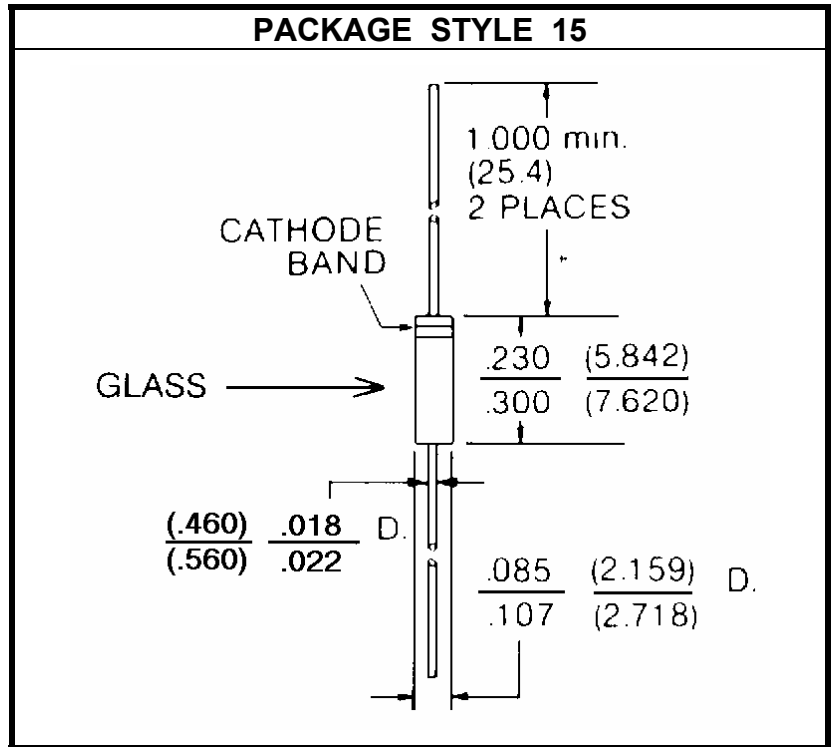
The **ASI 5082-2818** is a Silicon Small Signal Schottky Diode for General Purpose UHF/VHF Detection and Pulse Applications. Color Band Indicates Cathode.

## FEATURES:

- Low Noise Figure
- Matched pair of 5082-2817

## MAXIMUM RATINGS

|               |   |
|---------------|---|
| $I_F$         | 100 mA  |
| $V_R$         | 15 V  |
| $P_{DISS}$    | 250 mW @ $T_A = 25\text{ }^\circ\text{C}$     |
| $T_J$         | -60 $^\circ\text{C}$ to +200 $^\circ\text{C}$ |
| $T_{STG}$     | -60 $^\circ\text{C}$ to +200 $^\circ\text{C}$ |
| $\theta_{JC}$ | 700 $^\circ\text{C}/\text{W}$                 |



## CHARACTERISTICS $T_C = 25\text{ }^\circ\text{C}$

| SYMBOL                  | TEST CONDITIONS   | MINIMUM | TYPICAL | MAXIMUM      | UNITS     |
|-------------------------|---|---------|---------|--------------|-----------|
| $V_{BR}$                | $I_R = 10\text{ }\mu\text{A}$   | 15      |         |              | V         |
| $I_R$                   | $V_R = 15\text{ V}$   |         |         | 500          | nA        |
| $V_F$                   | $I_F = 100\text{ mA}$   |         |         | 0.5          | V         |
| $C_J$                   | $V_R = 0\text{ V}$ $f = 1.0\text{ MHz}$   |         |         | 1.0          | pF        |
| <b>NF</b><br><b>SWR</b> | LO Power = 1.0 mW $NF = 1.5\text{ dB}$<br>IF = 30 MHz DC Load Resistance = $\Omega$     |         |         | 6.0<br>1.5:1 | dB<br>--- |
| $\Delta NF$             |   |         |         | 0.3          | dB        |
| $Z_{IF}$                | LO Power = 1.0 mW $NF = 1.5\text{ dB}$<br>IF = 30 MHz DC Load Resistance = 100 $\Omega$ | 250     |         | 400          | $\Omega$  |
| $\Delta Z_{IF}$         |   |         |         | 25           | $\Omega$  |