

# SILICON VARACTOR DIODE

**DESCRIPTION:**

The **ASI MV1807J1** is a Diffused Epitaxial Varactor Diode Designed for Multiplier Applications.

**MAXIMUM RATINGS**

<b>I</b>	100 mA
<b>V</b>	80 V
<b>P<sub>DISS</sub></b>	21 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +150 °C
<b>T<sub>STG</sub></b>	-65 °C to +175 °C
<b>θ<sub>JC</sub></b>	6.0 °C/W

**PACKAGE STYLE DO-4**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A		0.405		10.28
b		0.250		6.35
c				
φD		0.505		12.82
φD <sub>1</sub>	0.265	0.424	6.74	10.76
E	0.423	0.438	10.75	11.12
F <sub>1</sub>	0.075	0.175	1.91	4.44
J	0.600	0.800	15.24	20.32
φM	0.163	0.189	4.15	4.80
N	0.422	0.453	10.72	11.50
N <sub>1</sub>		0.078		1.98
S				
φT	0.060	0.095	1.53	2.41
φW	10-32	UNF-2A	10-32	UNF-2A

Cathode to case

**CHARACTERISTICS** T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
V <sub>B</sub>	I <sub>R</sub> = 10 μA	80			V
C <sub>T</sub>	V <sub>R</sub> = 6.0 V f = 1.0 MHz	10.8		13.2	pF
R <sub>S</sub>	V <sub>R</sub> = 6.0 V f = 50 MHz		0.25		Ohms
F <sub>OUT</sub>				1000	MHz
P <sub>OUT</sub>		25.1			W
F <sub>IN</sub>				500	MHz
P <sub>IN</sub>				37.0	W