

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI SD1441** is a 12.5 V epitaxial silicon NPN planar transistor. Designed primarily for VHF communication in the 175 MHz frequency.

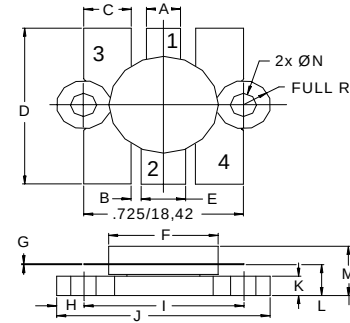
FEATURES:

- 175 MHz 12.5 V
- $P_G = 5.0$ dB at 150 W/175 MHz
- **Omnigold™** Metalization System
- Common Emitter configuration

MAXIMUM RATINGS

I_C	22 A
V_{CBO}	36 V
V_{CEO}	18 V
V_{CES}	36 V
V_{EBO}	4.0 V
P_{DISS}	350 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+150^\circ\text{C}$
θ_{JC}	0.5 $^\circ\text{C/W}$

PACKAGE STYLE .500 6L FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.150 / 3.43	.160 / 4.06
B	.045 / 1.14	
C	.210 / 5.33	.220 / 5.59
D	.835 / 21.21	.865 / 21.97
E	.200 / 5.08	.210 / 5.33
F	.490 / 12.45	.510 / 12.95
G	.003 / 0.08	.007 / 0.18
H	.125 / 3.18	
I	.725 / 18.42	
J	.970 / 24.64	.980 / 24.89
K	.090 / 2.29	.105 / 2.67
L	.150 / 3.81	.170 / 4.32
M	.285 / 7.24	
N	.120 / 3.05	.135 / 3.43

1 = Collector 2 = Base 3&4 = Emitter

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 100$ mA	18			V
BV_{CES}	$I_C = 100$ mA	36			V
BV_{EBO}	$I_E = 5.0$ mA	4.0			V
I_{CBO}	$V_{CB} = 15$ V			5.0	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 5.0$ A	10			---
C_{OB}	$V_{CB} = 12.5$ V $f = 1.0$ MHz			430	pF
P_G η_c	$V_{CE} = 12.5$ V $P_{OUT} = 150$ W $f = 175$ MHz	5.0	5.5 60		dB %