

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI SD4100** is a gold metallized RF power transistor designed for high linearity Class-AB operation in UHF and band IV and V for TV transmitters. It utilizes emitter ballasting for high reliability and ruggedness.

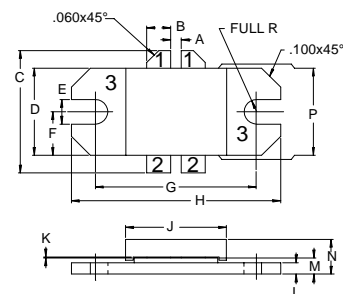
## FEATURES:

- Common Emitter, Class AB push-pull
- $P_G = 8.5$  dB at 100 W/860 MHz
- **Omnigold™** Metalization System
- 28 V operations

## MAXIMUM RATINGS

$I_C$	16 A
$V_{CB}$	65 V
$V_{CE}$	30 V
$P_{DISS}$	220 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	0.8 °C/W

## PACKAGE STYLE .450 BAL FLG(A)



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.055 / 1.40	
B	.120 / 3.05	.130 / 3.30
C	.785 / 19.94	
D	.455 / 11.56	.465 / 11.81
E	.120 / 3.05	.130 / 3.30
F	.230 / 5.84	
G	.838 / 21.28	.850 / 21.59
H	1.095 / 27.81	1.105 / 28.07
J	.525 / 13.34	.535 / 13.59
K	.002 / 0.05	.005 / 0.15
L	.055 / 1.40	.065 / 1.65
M	.080 / 2.03	.095 / 2.41
N	.195 / 4.95	
P	.445 / 11.30	.455 / 11.56

1 = COLLECTOR 2 = BASE 3 = EMITTER

## CHARACTERISTICS $T_C = 25$ °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 80$ mA	30			V
$BV_{CER}$	$I_C = 120$ mA $R_{BE} = 75$ Ω	40			V
$BV_{EBO}$	$I_E = 20$ mA	3.5			V
$I_{CES}$	$V_E = 28$ V			10	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 4.0$ A	25		120	---
$P_G$ $\eta_c$	$V_{CE} = 28$ V $I_{CQ} = 2 \times 100$ mA $f = 860$ MHz $P_{OUT} = 100$ W $P_{REF} = 25$ W	8.5 55			dB