

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

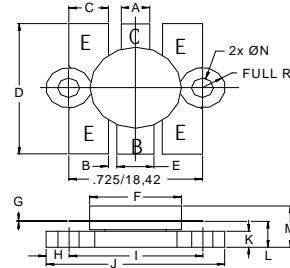
The **MRF316** is Designed for Class C Power Amplifier Applications up to 200 MHz.

**FEATURES:**

- $P_G = 10$  dB min. at 80 W/ 150 MHz
- Withstands **30:1** Load VSWR
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	20 A
$V_{CBO}$	65 V
$V_{CEO}$	36 V
$V_{EBO}$	4.0 V
$P_{DISS}$	270 W @ $T_C = 25^\circ C$
$T_J$	$-65^\circ C$ to $+200^\circ C$
$T_{STG}$	$-65^\circ C$ to $+150^\circ C$
$\theta_{JC}$	0.65 $^\circ C/W$

**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

**ORDER CODE: ASI10771**
**CHARACTERISTICS**  $T_C = 25^\circ C$ 

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 100$ mA	65			V
$BV_{CES}$	$I_C = 100$ mA	65			V
$BV_{CEO}$	$I_C = 100$ mA	35			
$BV_{EBO}$	$I_E = 10$ mA	4.0			V
$I_{CES}$	$V_{CE} = 30$ V			15	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 5.0$ A	20		200	---
$C_{OB}$	$V_{CB} = 28$ V $f = 1.0$ MHz			250	pF
$P_G$	$V_{CE} = 28$ V $P_{OUT} = 80$ W $f = 175$ MHz	10.0	13.0		dB
$\eta_c$		55	60		%
$\Psi$		30:1 minimum without degation in output power			