

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

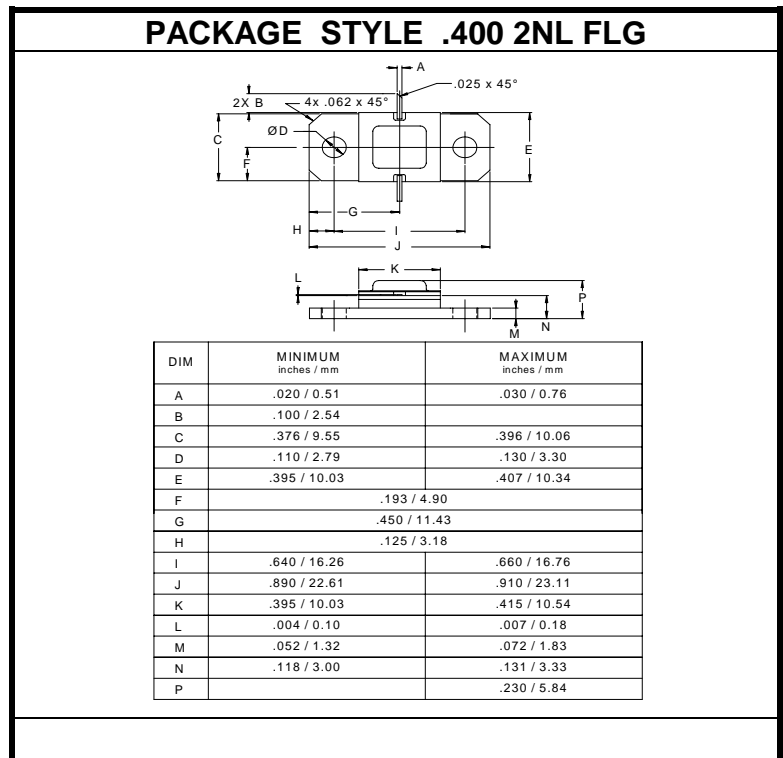
The **ASI MSC1300M** is a high power Class C, common Base transistor, Designed for IFF/DME/TACAN Applications.

**FEATURES:**

- Internal Input/Output Matching Networks
- $P_E = 6.3$  dB at 300 W/1090 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	20 A
$V_{CC}$	55 V
$P_{DISS}$	625 W @ $T_C = 25^\circ C$
$T_J$	-65 °C to +250 °C
$T_{STG}$	-65 °C to +200 °C
$\theta_{JC}$	0.20 °C/W


**CHARACTERISTICS**  $T_C = 25^\circ C$ 

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 10$ mA	65			v
$BV_{CER}$	$I_C = 25$ mA $R_{BE} = 10 \Omega$	65			V
$BV_{EBO}$	$I_E = 1.0$ mA	3.5			V
$I_{CES}$	$V_{CE} = 50$ V			25	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 1.0$ A	15		120	---
$G_P$	$V_{CC} = 50$ V $P_{OUT} = 300$ W $f = 1090$ MHz	6.3	6.7		dB
$\eta_C$		35	42		%

Pulse Width = 10  $\mu$ sec, Duty Cycle 10 %