

# NPN SILICON RF POWER TRANSISTOR

#### **DESCRIPTION:**

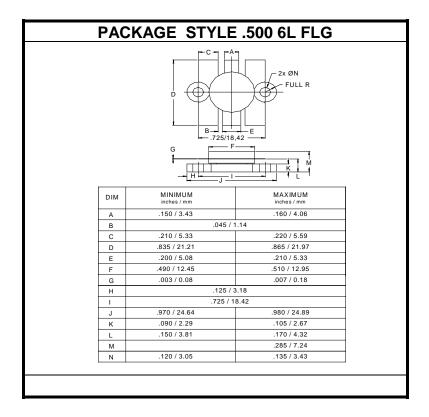
The **ASI MRF650** is Designed for Class C, FM Land Mobile Applications up to 470 MHz.

#### **FEATURES:**

- Internal Input Matching Network
- P<sub>G</sub> = 5.0 dB at 45 W/470 MHz
- *Omnigold*™ Metalization System

### **MAXIMUM RATINGS**

Ic	12 A				
V <sub>CBO</sub>	36 V				
V <sub>CEO</sub>	16 V				
V <sub>CES</sub>	36 V				
V <sub>EBO</sub>	4.0 V				
P <sub>DISS</sub>	175 W @ T <sub>C</sub> = 25 °C				
TJ	-65 °C to +200 °C				
T <sub>STG</sub>	-65 °C to +150 °C				
$\theta_{JC}$	1.0 °C/W				



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

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV <sub>CEO</sub>	$I_C = 50 \text{ mA}$			16			V
BV <sub>CES</sub>	I <sub>C</sub> = 20 mA			36			V
BV <sub>CBO</sub>	$I_{\rm C} = 5.0 \; {\rm mA}$			36			
BV <sub>EBO</sub>	I <sub>E</sub> = 5.0 mA			4.0			V
I <sub>CBO</sub>	V <sub>CB</sub> = 15 V					5.0	mA
I <sub>CES</sub>	V <sub>CE</sub> = 22 V					5.0	mA
h <sub>FE</sub>	V <sub>CE</sub> = 5.0 V	$I_{C} = 5.0 \text{ A}$		20		200	
C <sub>ob</sub>	V <sub>CB</sub> = 12.5 V		f = 1.0 MHz			150	pF
P <sub>G</sub> η <sub>C</sub>	V <sub>CE</sub> = 12.5 V	P <sub>OUT</sub> = 45 W	f = 470 MHz	5.0	60		dB %

## ADVANCED SEMICONDUCTOR, INC.