

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI MRF475** is Designed for 13.6 V FM Large-Signal Amplifier Applications to 30 MHz.

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	4.0 A
<b>V<sub>CE</sub></b>	18 V
<b>V<sub>CB</sub></b>	48 V
<b>P<sub>DISS</sub></b>	10 W @ T <sub>C</sub> = 25 °C
<b>T<sub>STG</sub></b>	-65 °C to +150 °C
<b>T<sub>J</sub></b>	-65 °C to +150 °C
<b>θ<sub>JC</sub></b>	12.5 °C/W

**PACKAGE STYLE TO-220AB (COMMON EMITTER)**

	DIMENSIONS			
	mm		inches	
	min	max	min	max
A	10	10.4	0.393	0.409
B	15.2	15.9	0.598	0.626
C	12.7	13.7	0.500	0.539
D	6.2	6.6	0.244	0.260
E	4.4	4.6	0.173	0.181
F	3.5	5.5	0.137	0.216
G	2.65	2.95	0.104	0.116
H	17.6 typ.		0.692 typ.	
L	1.14	1.7	0.044	0.067
M	3.75	3.85	0.147	0.151
N	1.23	1.32	0.048	0.051
P	0.41	0.64	0.016	0.025
R	2.4	2.72	0.094	0.107
S	4.95	5.15	0.194	0.203
T	2.4	2.7	0.094	0.106
U	0.61	0.94	0.024	0.037

1 = BASE                      2 = COLLECTOR  
 3 = EMITTER                TAB = COLLECTOR

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 20 mA	18			<b>V</b>
<b>BV<sub>CES</sub></b>	I <sub>C</sub> = 50 mA	48			<b>V</b>
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 5.0 mA	4.0			<b>V</b>
<b>I<sub>CB0</sub></b>	V <sub>CB</sub> = 25 V			1.0	<b>mA</b>
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 5.0 V      I <sub>C</sub> = 500 mA	30	60		<b>---</b>
<b>C<sub>ob</sub></b>	V <sub>CB</sub> = 13.6 V      f = 1.0 MHz		125	145	<b>pF</b>
<b>G<sub>PE</sub></b>	V <sub>CC</sub> = 13.6 V      I <sub>co</sub> = 20 mA      P <sub>out</sub> = 12 W (PEP)	10	12		<b>dB</b>
<b>η</b>	f <sub>1</sub> = 30 MHz      f <sub>2</sub> = 30.001 MHz	40			<b>%</b>
<b>IMD</b>				-30	<b>dB</b>