

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI 2SC1972** is Designed for RF power amplifiers on VHF band mobile radio applications.

**FEATURES INCLUDE:**

- Replaces Original **2SC1972** in Most Applications
- High Gain Reduces Drive Requirements
- Economical **TO-220CE** Package

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	3.5 A
<b>V<sub>CB0</sub></b>	35 V
<b>P<sub>DISS</sub></b>	25 W @ T <sub>C</sub> = 25 °C
<b>T<sub>STG</sub></b>	-55 °C to +175 °C
<b>θ<sub>JC</sub></b>	6.0 °C/W

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

1 = BASE                      2 = EMITTER  
3 = COLLECTOR      TAB = 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

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 50 mA	17			V
<b>BV<sub>CBO</sub></b>	I <sub>C</sub> = 10 mA	35			V
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 10 mA	4.0			V
<b>I<sub>CB0</sub></b>	V <sub>CES</sub> = 25 V			100	µA
<b>I<sub>EBO</sub></b>	V <sub>EB</sub> = 3.0 V			500	µA
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 10 V      I <sub>C</sub> = 100 mA	10	50	180	---
<b>η<sub>C</sub></b>	V <sub>CC</sub> = 13.5 V      P <sub>IN</sub> = 2.5 W      f = 175 MHz	60	70		%
<b>P<sub>OUT</sub></b>		14	15		W