

# NPN SILICON RF TRANSISTOR

**DESCRIPTION:**

The **ASI MRF553** is designed for Low power amplifier applications.

**FEATURES:**

- 12.5 V, 175 MHz.
- $P_{OUT} = 1.5 W$
- $G_P = 11.5 \text{ min.}$
- $\eta = 60 \% \text{ (Typ)}$

**MAXIMUM RATINGS**

$I_C$	500 mA
$V_{CB}$	36 V
$P_{DISS}$	3.0 W @ $T_C = 75^\circ C$
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	41.7 °C/W

**PACKAGE STYLE**

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.45	5.21	.175	.205
B	1.91	2.54	.075	.100
C	0.84	0.99	.033	.039
D	2.46	2.64	.097	.104
E	8.84	9.73	.348	.383
F	0.20	0.31	.008	0.12
G	7.24	8.13	.285	.320
H	1.65		0.65	
J	3.25		0.128	
K	0.64	1.02	.025	0.40

1 = COLLECTOR  
2 = EMITTER  
3 = BASE  
4 = EMITTER

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 10 \text{ mA}$	16			V
$BV_{CBO}$	$I_C = 5.0 \text{ mA}$	36			V
$BV_{CES}$	$I_C = 5.0 \text{ mA}$	36			V
$BV_{EBO}$	$I_E = 1.0 \text{ mA}$	4.0			V
$I_{CES}$	$V_{CE} = 15 \text{ V}$			5.0	mA
$h_{FE}$	$V_{CE} = 5.0 \text{ V}$ $I_C = 250 \text{ mA}$	30		200	---
$C_{CB}$	$V_{CB} = 10 \text{ V}$ $f = 1.0 \text{ MHz}$		12	20	pF
$G_{PE}$	$V_{CE} = 12 \text{ V}$ $P_{OUT} = 1.5 \text{ W}$ $f = 175 \text{ MHz}$	11.5	13		dB
$\eta$		50	60		%
$\psi$		10:1			---