

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI 2SC3133** is Designed for RF Power amplifiers in HF band mobile radio Applications.

**MAXIMUM RATINGS**

$I_C$	6.0 A
$V_{CE}$	25 V
$V_{CB}$	60 V
$P_{DISS}$	20 W @ $T_C = 25\text{ }^\circ\text{C}$
$T_{STG}$	-65 $^\circ\text{C}$ to +150 $^\circ\text{C}$
$\theta_{JC}$	6.25 $^\circ\text{C/W}$

**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 = EMITTER  
 3 = COLLECTOR              TAB = EMITTER

**CHARACTERISTICS**  $T_C = 25\text{ }^\circ\text{C}$ 

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 10\text{ mA}$	25			V
$BV_{CBO}$	$I_C = 5.0\text{ mA}$	60			V
$BV_{EBO}$	$I_E = 1.0\text{ mA}$	5.0			V
$I_{CBO}$	$V_{CB} = 30\text{ V}$			500	$\mu\text{A}$
$I_{EBO}$	$V_{EB} = 4.0\text{ V}$			500	$\mu\text{A}$
$h_{FE}$	$V_{CE} = 12\text{ V}$ $I_C = 10\text{ mA}$	10	50	180	---
$P_o$ $\eta_c$	$V_{CC} = 12\text{ V}$ $P_{IN} = 0.5\text{ W}$ $f = 27\text{ MHz}$	13 60	16 70		<b>dB</b> %