NPN SILICON RF POWER TRANSISTOR

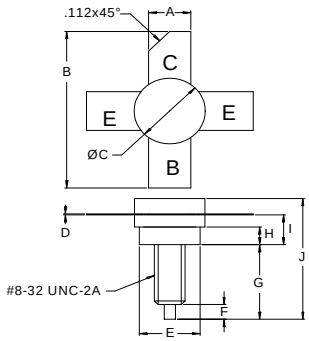
DESCRIPTION:

The **ASI SD1143** is 12.2 V Class C Transistor, designed for VHF mobile communications.

FEATURES:

- Common Emitter
- P_G = 10 dB at 10 W/175 MHz
- ***Omnigold***™ Metalization System

PACKAGE STYLE .380 4L STUD



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.980 / 24.89	
C	.370 / 9.40	.385 / 9.78
D	.004 / 0.10	.007 / 0.18
E	.320 / 8.13	.330 / 8.38
F	.100 / 2.54	.130 / 3.30
G	.450 / 11.43	.490 / 12.45
H	.090 / 2.29	.100 / 2.54
I	.155 / 3.94	.175 / 4.45
J		.750 / 19.05

MAXIMUM RATINGS

I_C	2.0 A
V_{CBO}	36 V
V_{CEO}	18 V
V_{CES}	36 V
V_{EBO}	4.0 V
P_{DISS}	20 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	8.8 °C/W

CHARACTERISTICS T_C = 25 °C

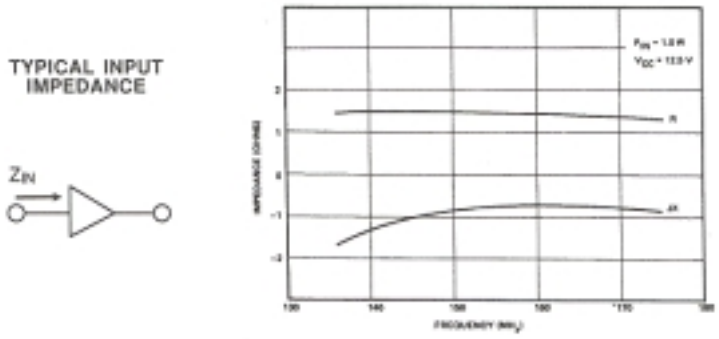
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 15 mA	18			V
BV_{CES}	I_C = 50 mA	36			V
BV_{EBO}	I_E = 2.5 mA	4.0			V
I_{CBO}	V_{CB} = 15 V			1.0	mA
h_{FE}	V_{CE} = 5.0 V I_C = 250 mA	5.0		200	---
C_{OB}	V_{CB} = 12.5 V f = 1.0 MHz			45	pF
P_G	V_{CE} = 12.5 V P_{OUT} = 10 W f = 175 MHz	10			dB
η_C			60		%

Specifications are subject to change without notice.

IMPEDANCE DATA

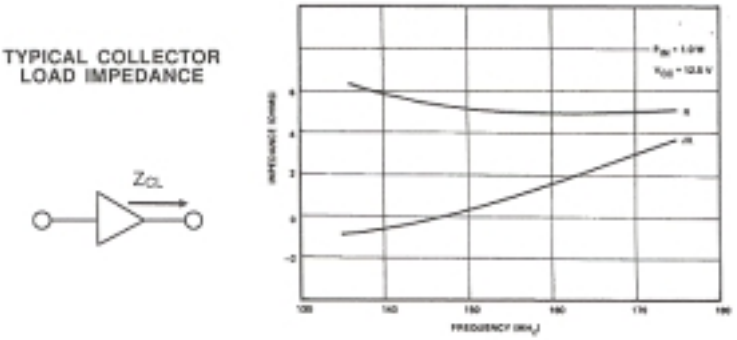
TYPICAL INPUT IMPEDANCE

Z_{IN}



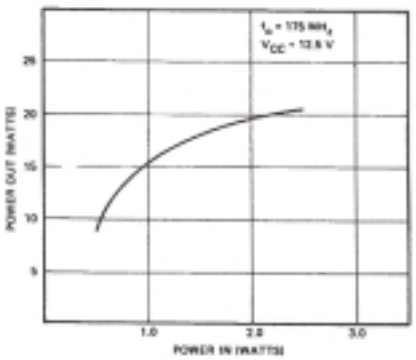
TYPICAL COLLECTOR LOAD IMPEDANCE

Z_{CL}

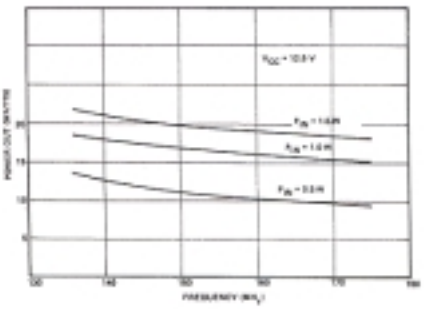


TYPICAL PERFORMANCE

POWER OUTPUT vs POWER INPUT



POWER OUTPUT vs FREQUENCY



Specifications are subject to change without notice.