

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

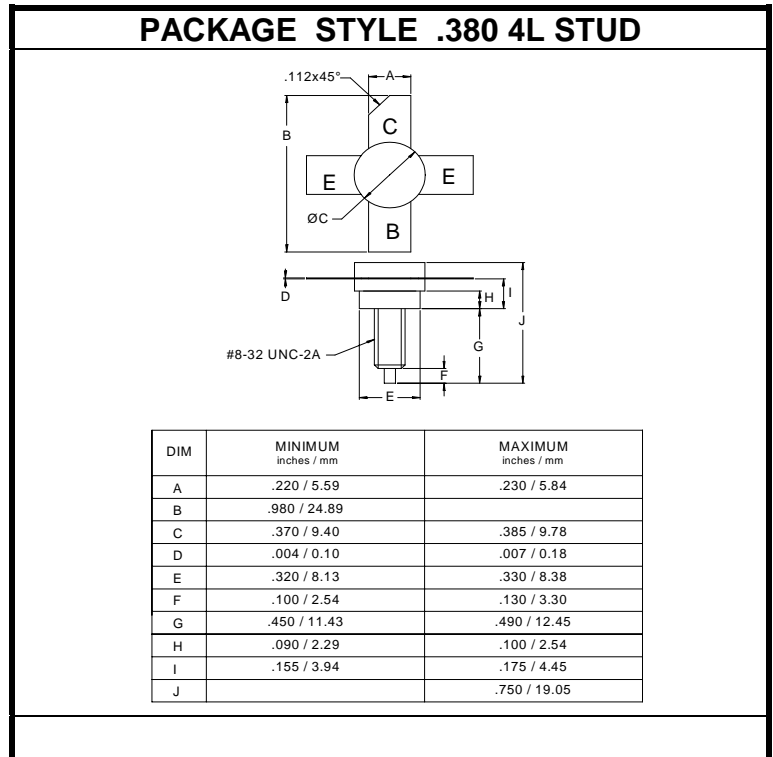
The **ASI SD1143** is 12.2 V Class C Transistor, designed for VHF mobile communications.

**FEATURES:**

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

**MAXIMUM RATINGS**

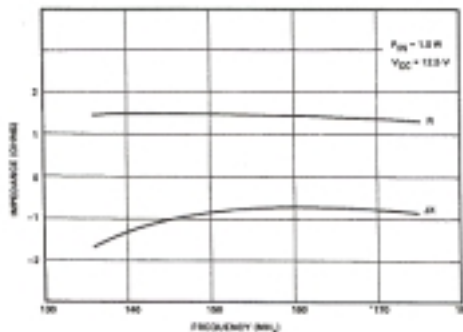
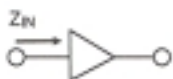
$I_C$	2.0 A
$V_{CBO}$	36 V
$V_{CEO}$	18 V
$V_{CES}$	36 V
$V_{EBO}$	4.0 V
$P_{DISS}$	20 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	8.8 °C/W


**CHARACTERISTICS**  $T_C = 25$  °C

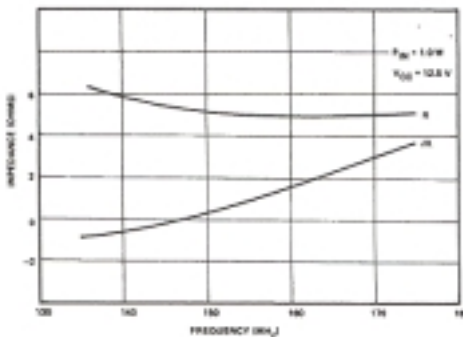
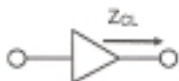
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 15$ mA	18			V
$BV_{CES}$	$I_C = 50$ mA	36			V
$BV_{EBO}$	$I_E = 2.5$ mA	4.0			V
$I_{CBO}$	$V_{CB} = 15$ V			1.0	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 250$ mA	5.0		200	---
$C_{OB}$	$V_{CB} = 12.5$ V $f = 1.0$ MHz			45	pF
$P_G$ $\eta_c$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

IMPEDANCE DATA

TYPICAL INPUT IMPEDANCE

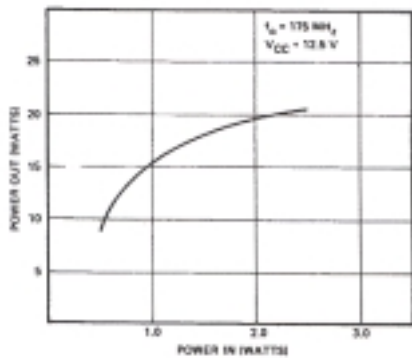


TYPICAL COLLECTOR LOAD IMPEDANCE



TYPICAL PERFORMANCE

POWER OUTPUT vs POWER INPUT



POWER OUTPUT vs FREQUENCY

