

**isc Silicon PNP Power Transistor**
**2SA1942**
**DESCRIPTION**

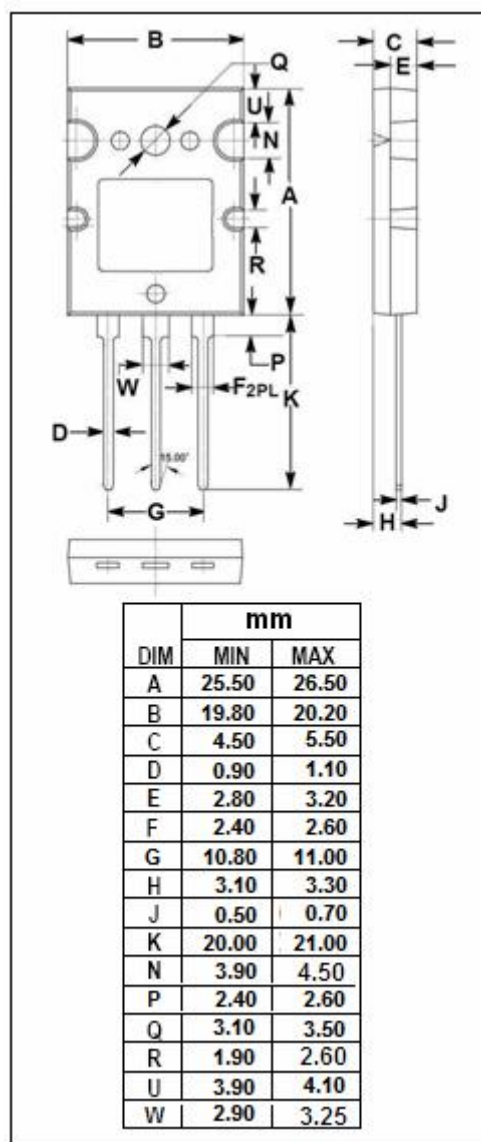
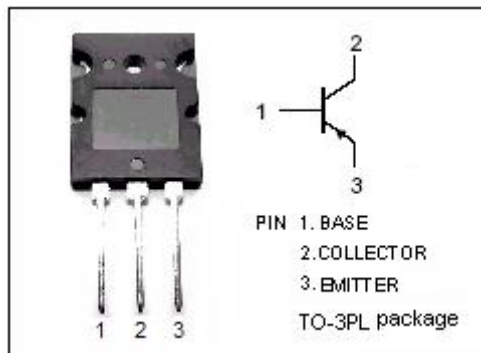
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -160V(\text{Min})$
- Complement to Type 2SC5199
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage applications

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-160	V
$V_{CEO}$	Collector-Emitter Voltage	-160	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-12	A
$I_B$	Base Current-Continuous	-1.2	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	120	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



## isc Silicon PNP Power Transistor

## 2SA1942

## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -50mA; I <sub>B</sub> = 0	-160			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -8.0A; I <sub>B</sub> = -0.8A			-2.5	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -6A; V <sub>CE</sub> = -5V			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -160V; I <sub>E</sub> = 0			-5	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-5	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -1A; V <sub>CE</sub> = -5V	55		160	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -6A; V <sub>CE</sub> = -5V	35			
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> =0; V <sub>CB</sub> = -10V; f= 1.0MHz		320		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> =-1A; V <sub>CE</sub> = -5V		30		MHz

◆ h<sub>FE-1</sub> Classifications

R	O
55-110	80-160

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