

**isc Silicon PNP Power Transistor**

**2SA490**

**DESCRIPTION**

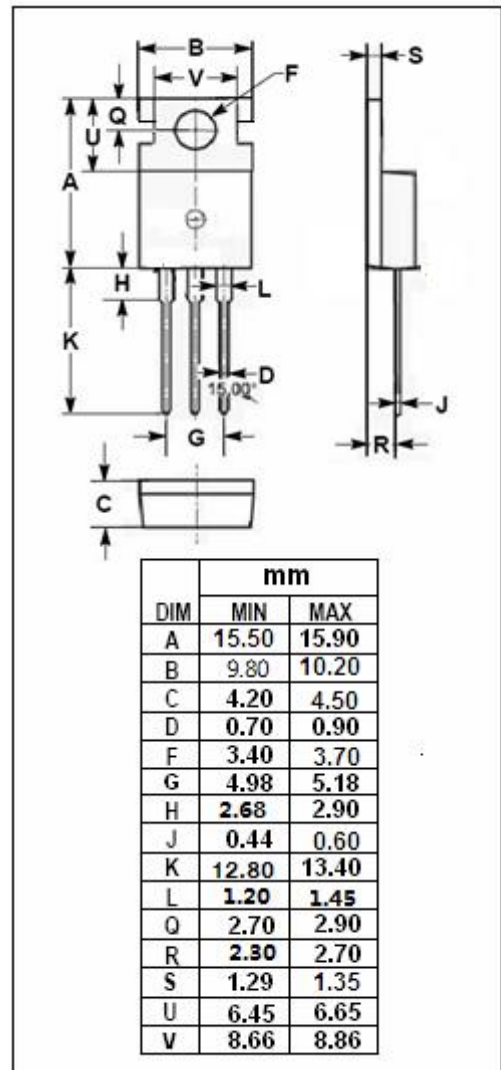
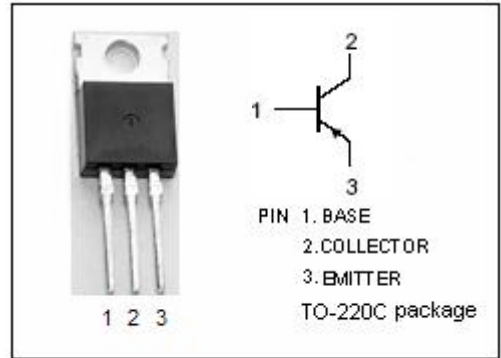
- High Collector Current::  $I_C = -3A$
- Collector-Emitter Breakdown Voltage :  $V_{(BR)CEO} = -40V(\text{Min})$
- Complement to Type 2SC790
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- 10 Watts output applications
- Power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-50	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-3	A
$I_E$	Emitter Current-Continuous	3	A
$P_C$	Total Power Dissipation @ $T_C=25^\circ\text{C}$	25	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****2SA490****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	-40			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA ; I <sub>C</sub> = 0	-5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -2A; I <sub>B</sub> = -0.2A			-1.2	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -2V			-1.8	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -30V ; I <sub>E</sub> = 0			-10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-100	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -2V	40		240	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -2V	13			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -2V	3			MHZ
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f <sub>test</sub> = 1MHZ		150		pF

◆ **h<sub>FE-1</sub> Classifications**

R	O	Y
40-80	70-140	120-240

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