

isc Silicon PNP Power Transistor

2SA490

DESCRIPTION

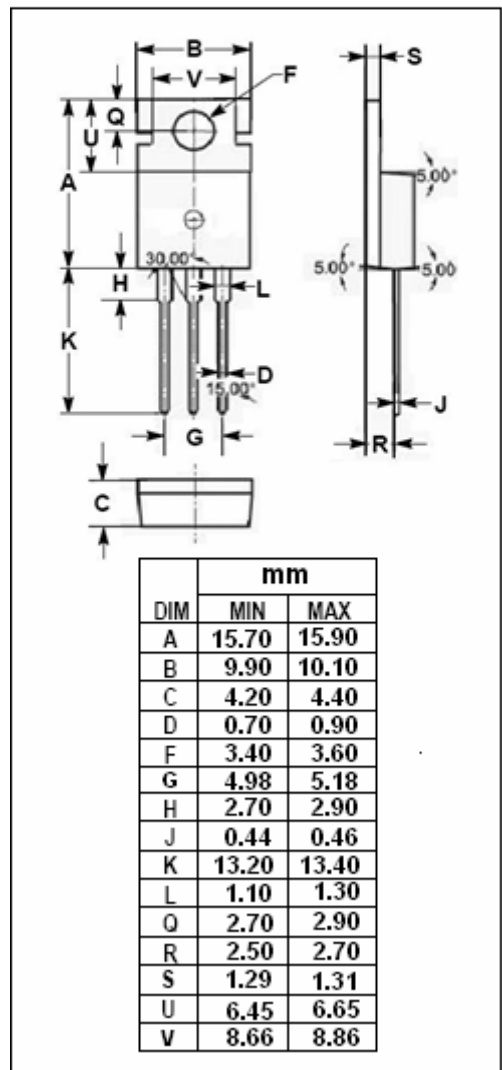
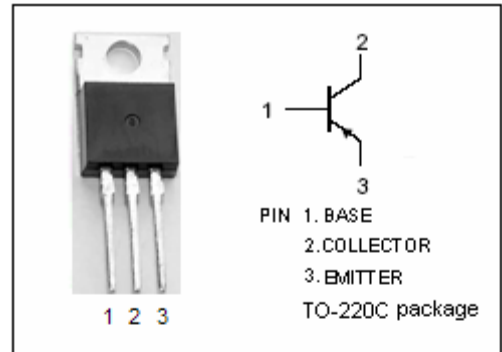
- High Collector Current:: $I_C = -3A$
- Collector-Emitter Breakdown Voltage : $V_{(BR)CEO} = -40V(\text{Min})$
- Complement to Type 2SC790

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	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}$; $I_B = 0$	-40			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\text{mA}$; $I_C = 0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$; $I_B = -0.2\text{A}$			-1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -2\text{A}$; $V_{CE} = -2\text{V}$			-1.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -30\text{V}$; $I_E = 0$			-10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-100	μA
h_{FE-1}	DC Current Gain	$I_C = -0.5\text{A}$; $V_{CE} = -2\text{V}$	40		240	
h_{FE-2}	DC Current Gain	$I_C = -2\text{A}$; $V_{CE} = -2\text{V}$	13			
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}$; $V_{CE} = -2\text{V}$	3			MHz
C_{OB}	Output Capacitance	$I_E = 0$; $V_{CB} = -10\text{V}$; $f_{test} = 1\text{MHz}$		150		pF

◆ h_{FE-1} Classifications

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