

Silicon PNP Power Transistors

2SA490

DESCRIPTION

- With TO-220 package
- Complement to type 2SC790

APPLICATIONS

- For power amplifier applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

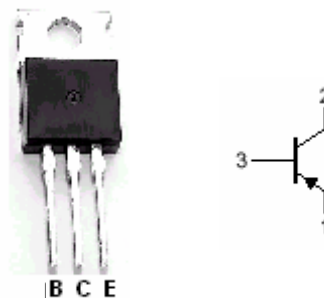


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-50	V
V_{CEO}	Collector-emitter voltage	Open base	-40	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-3	A
I_E	Emitter current		3	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	25	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-50mA, I_B=0$	-40			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=-10mA; I_C=0$	-5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-2A; I_B=-0.2A$		-0.45	-1.2	V
V_{BE}	Base-emitter voltage	$I_C=-2A; V_{CE}=-2V$		-0.85	-1.8	V
I_{CBO}	Collector cut-off current	$V_{CB}=-30V; I_E=0$			-10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5V; I_C=0$			-100	μA
h_{FE-1}	DC current gain	$I_C=-0.5A; V_{CE}=-2V$	40		240	
h_{FE-2}	DC current gain	$I_C=-2A; V_{CE}=-2V$	13	50		
C_{OB}	Collector output capacitance	$I_E=0; V_{CB}=-10V; f=1MHz$		150		pF
f_T	Transition frequency	$I_C=-0.5A; V_{CE}=-2V$	3			MHz

◆ h_{FE-1} Classifications

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

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PACKAGE OUTLINE

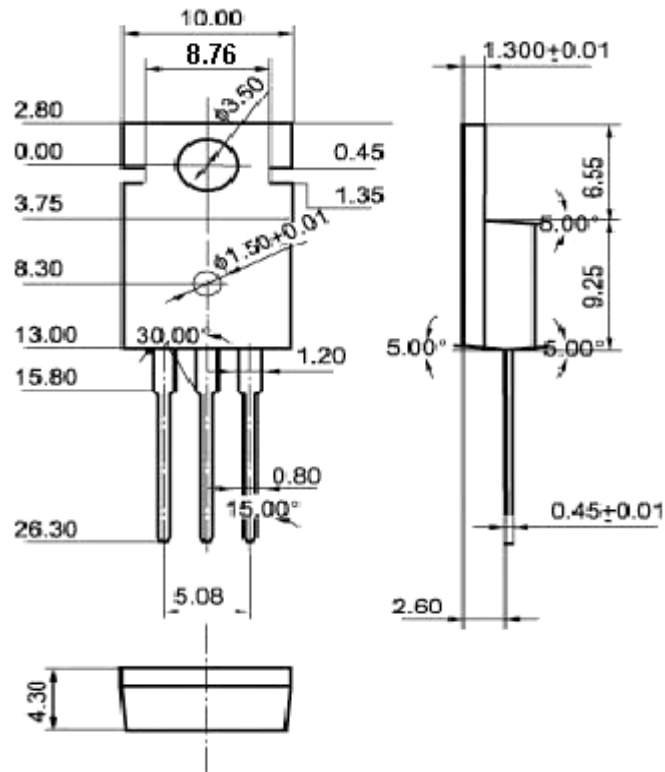


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)