

Silicon PNP Power Transistors

2N6489 2N6490 2N6491

DESCRIPTION

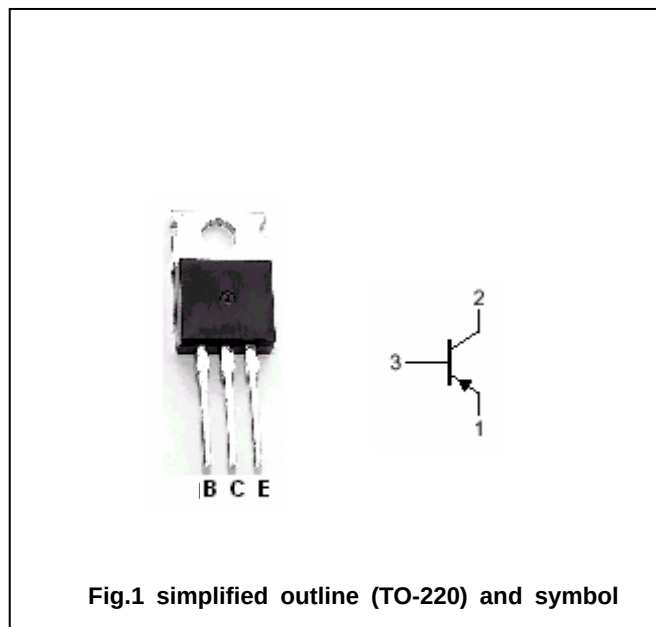
- With TO-220 package
- Excellent safe operating area
- Complement to type 2N6486 2N6487 2N6488 respectively

APPLICATIONS

- Power amplifier and medium speed switching applications

PINNING

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

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6489	Open emitter	-50	V
		2N6490		-70	
		2N6491		-90	
V_{CEO}	Collector-emitter voltage	2N6489	Open base	-40	V
		2N6490		-60	
		2N6491		-80	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-15	A
I_B	Base current			-5	A
P_T	Total power dissipation		$T_C=25^{\circ}\text{C}$	75	W
T_j	Junction temperature			150	$^{\circ}\text{C}$
T_{stg}	Storage temperature			-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.67	$^{\circ}\text{C/W}$

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CHARACTERISTICS

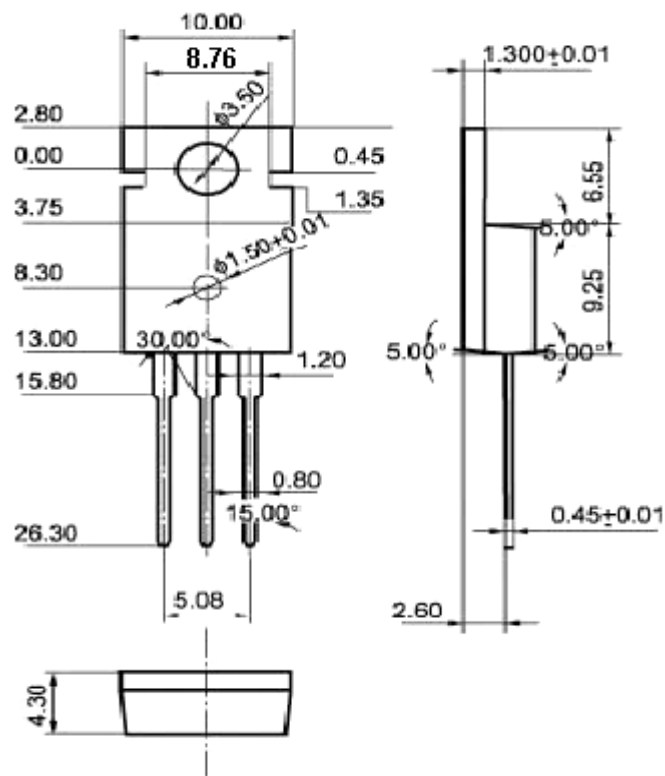
T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	2N6489	I _C =-0.2A ; I _B =0	-40			V
		2N6490		-60			
		2N6491		-80			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =-5A; I _B =-0.5A			-1.3	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =-15A; I _B =-5A			-3.5	V
V _{BE-1}	Base-emitter on voltage		I _C =-5A ; V _{CE} =-4V			-1.3	V
V _{BE-2}	Base-emitter on voltage		I _C =-15A ; V _{CE} =-4V			-3.5	V
I _{CEX}	Collector cut-off current V _{BE} =-1.5V	2N6489	V _{CE} =-45V; V _{CE} =-40V; T _C =150°C			-0.5 -5.0	mA
		2N6490	V _{CE} =-65V; V _{CE} =-60V; T _C =150°C			-0.5 -5.0	
		2N6491	V _{CE} =-85V; V _{CE} =-80V; T _C =150°C			-0.5 -5.0	
I _{CEO}	Collector cut-off current	2N6489	V _{CE} =-20V; I _B =0			-1.0	mA
		2N6490	V _{CE} =-30V; I _B =0				
		2N6491	V _{CE} =-40V; I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-1.0	mA
h _{FE-1}	DC current gain		I _C =-5A ; V _{CE} =-4V	20		150	
h _{FE-2}	DC current gain		I _C =-15A ; V _{CE} =-4V	5			

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PACKAGE OUTLINE

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