

**Silicon NPN Power Transistors**

**2N6486 2N6487 2N6488**

**DESCRIPTION**

- With TO-220 package
- Excellent safe operating area
- Complement to type 2N6489 2N6490 2N6491 respectively

**APPLICATIONS**

- Power amplifier and medium speed switching applications

**PINNING**

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

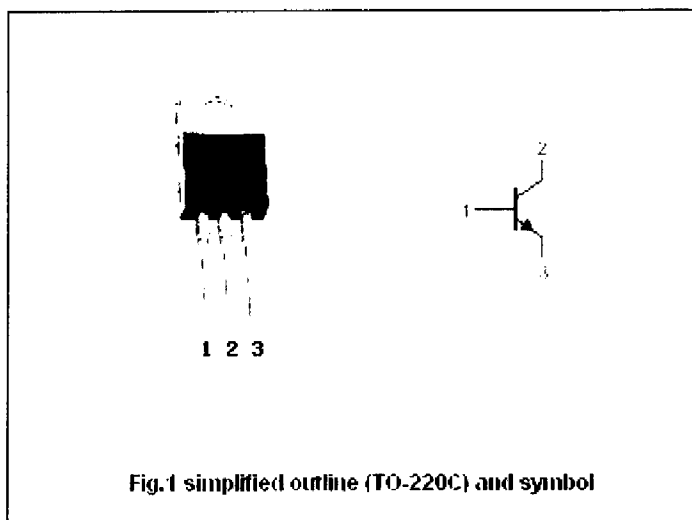


Fig.1 simplified outline (TO-220C) and symbol

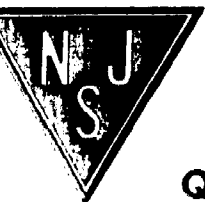
**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V <sub>CBO</sub>	Collector-base voltage	Open emitter	2N6486	50	V
			2N6487	70	
			2N6488	90	
V <sub>CEO</sub>	Collector-emitter voltage	Open base	2N6486	40	V
			2N6487	60	
			2N6488	80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V	
I <sub>C</sub>	Collector current		15	A	
I <sub>B</sub>	Base current		5	A	
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25°C	75	W	
T <sub>J</sub>	Junction temperature		150	°C	
T <sub>stg</sub>	Storage temperature		-65~150	°C	

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th-j-c</sub>	Thermal resistance from junction to case	1.67	°C/W

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**Quality Semi-Conductors**

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>CE(sus)</sub>	Collector-emitter sustaining voltage	2N6486	40			V	
		2N6487	60				
		2N6488	80				
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =5A; I <sub>B</sub> =0.5A			1.3	V	
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =15A; I <sub>B</sub> =5A			3.5	V	
V <sub>BE-1</sub>	Base-emitter on voltage	I <sub>C</sub> =5A; V <sub>CE</sub> =4V			1.3	V	
V <sub>BE-2</sub>	Base-emitter on voltage	I <sub>C</sub> =15A; V <sub>CE</sub> =4V			3.5	V	
I <sub>CEX</sub>	Collector cut-off current V <sub>BE</sub> =-1.5V	2N6486	V <sub>CE</sub> =45V; V <sub>CE</sub> =40V; T <sub>C</sub> =150°C			0.5 5.0	mA
		2N6487	V <sub>CE</sub> =65V; V <sub>CE</sub> =60V; T <sub>C</sub> =150°C			0.5 5.0	
		2N6488	V <sub>CE</sub> =85V; V <sub>CE</sub> =80V; T <sub>C</sub> =150°C			0.5 5.0	
I <sub>CEO</sub>	Collector cut-off current	2N6486	V <sub>CE</sub> =20V; I <sub>B</sub> =0			1.0	mA
		2N6487	V <sub>CE</sub> =30V; I <sub>B</sub> =0				
		2N6488	V <sub>CE</sub> =40V; I <sub>B</sub> =0				
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	mA	
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =5A; V <sub>CE</sub> =4V	20		150		
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =15A; V <sub>CE</sub> =4V	5				

PACKAGE OUTLINE

