

**Silicon NPN Power Transistors**

**2N5655 2N5656 2N5657**

**DESCRIPTION**

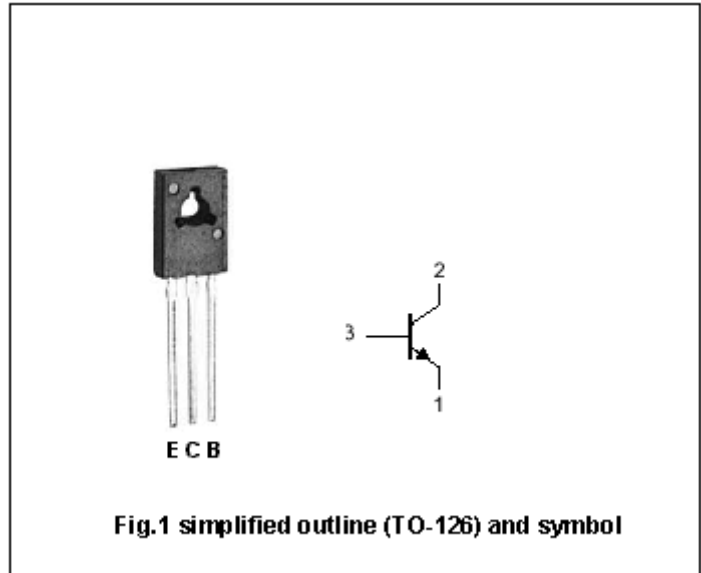
- With TO-126 package
- High breakdown voltage

**APPLICATIONS**

- For use in line-operated equipment such as audio output amplifiers; low-current ,high-voltage converters; and AC line relays

**PINNING**

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



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N5655	250	V
		2N5656	300	
		2N5657	350	
V <sub>CEO</sub>	Collector-emitter voltage	2N5655	275	V
		2N5656	325	
		2N5657	375	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	6	V
I <sub>C</sub>	Collector current		0.5	A
I <sub>CM</sub>	Collector current-Peak		1.0	A
I <sub>B</sub>	Base current		0.25	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25	20	W
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-65~150	

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th-j-c</sub>	Thermal resistance junction to case	6.25	/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE0(SUS)</sub>	Collector-emitter sustaining voltage	2N5655	I <sub>C</sub> =0.1A; I <sub>B</sub> =0; L=50mH			V
		2N5656				
		2N5657				
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =10mA			1.0	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =250mA ; I <sub>B</sub> =25mA			2.5	V
V <sub>CEsat-3</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =500mA ; I <sub>B</sub> =100mA			10	V
V <sub>BE</sub>	Emitter-base on voltage	I <sub>C</sub> =100mA ; V <sub>CE</sub> =10V			1.0	V
I <sub>CEO</sub>	Collector cut-off current	2N5655			0.1	mA
		2N5656				
		2N5657				
I <sub>CBO</sub>	Collector cut-off current	2N5655			10	μ A
		2N5656				
		2N5657				
I <sub>CEX</sub>	Collector cut-off current	V <sub>CE</sub> = Rated V <sub>CE0</sub> ; V <sub>BE(off)</sub> =1.5V T <sub>C</sub> =100			0.1 1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =6V; I <sub>C</sub> =0			10	μ A
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =50mA ; V <sub>CE</sub> =10V	25			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =100mA ; V <sub>CE</sub> =10V	30		250	
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =250mA ; V <sub>CE</sub> =10V	15			
h <sub>FE-4</sub>	DC current gain	I <sub>C</sub> =500mA ; V <sub>CE</sub> =10V	5			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =50mA ; V <sub>CE</sub> =10V; f=10MHz	10			MHz
C <sub>OB</sub>	Output capacitance	f=100kHz ; V <sub>CB</sub> =10V; I <sub>E</sub> =0			25	pF

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PACKAGE OUTLINE

