

## Silicon NPN Power Transistors

2SC1157

**DESCRIPTION**

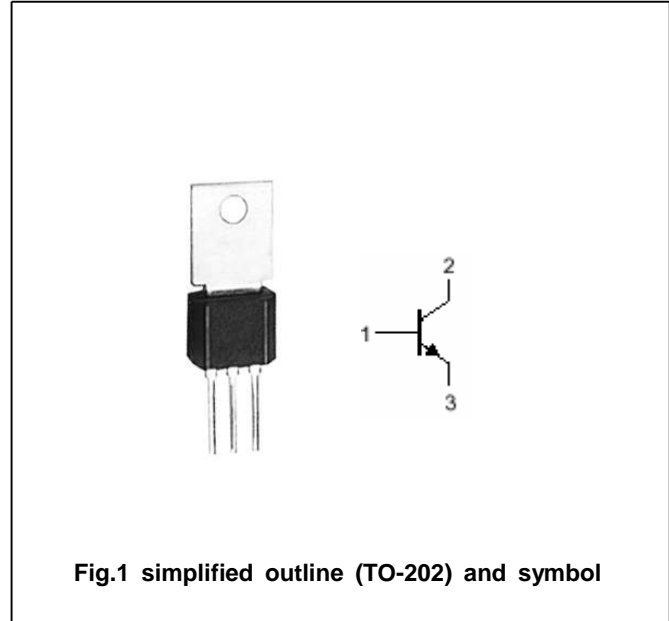
- With TO-202 package
- High transition frequency
- Complement to type 2SA647

**APPLICATIONS**

- For power amplifier switching applications

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	110	V
$V_{CEO}$	Collector-emitter voltage	Open base	100	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		0.8	A
$P_C$	Collector power dissipation	$T_C=25?$	7	W
$T_j$	Junction temperature		-40~150	?
$T_{stg}$	Storage temperature		-40~150	?

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =300mA I <sub>B</sub> =30m A			1.2	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =300mA I <sub>B</sub> =30m A			1.5	V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =100μA; I <sub>E</sub> =0	110			V
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =1mA; I <sub>B</sub> =0	100			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =100μA; I <sub>C</sub> =0	5			V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =110V; I <sub>E</sub> =0			1.0	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =300mA ; V <sub>CE</sub> =4V	20		300	
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =100mA ; V <sub>CB</sub> =10V		70		MHz

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PACKAGE OUTLINE

