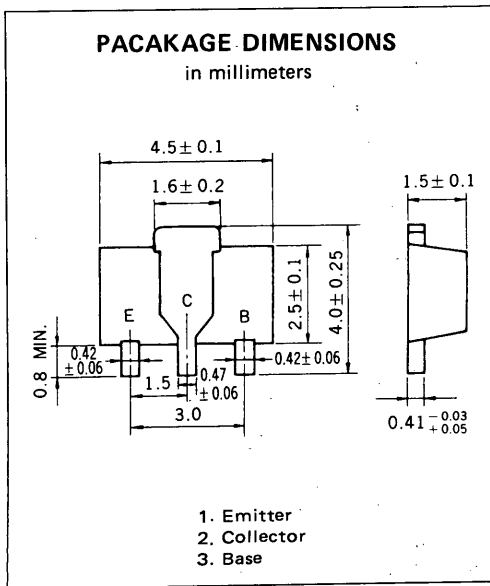


NPN SILICON EPITAXIAL TRANSISTOR
POWER MINI MOLD

DESCRIPTION

2SC3554 is designed for high Voltage Switching application, especially in Hybrid Integrated Circuits.



FEATURES

- World Standard Miniature Package
- High Voltage : $V_{CE0} = 300\text{ V}$

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current ($T_a = 25^\circ\text{C}$)

Collector to Base Voltage	V_{CB0}	300	V
Collector to Emitter Voltage	V_{CE0}	300	V
Emitter to Base Voltage	V_{EB0}	5	V
Collector Current (DC)	I_C	200	mA

Maximum Power Dissipation

Total Power Dissipation at 25°C Ambient Temperature*	P_T	2.0	W
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Maximum Temperatures

Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

*When mounted on ceramic substrate of $16\text{ cm}^2 \times 0.7\text{ mm}$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

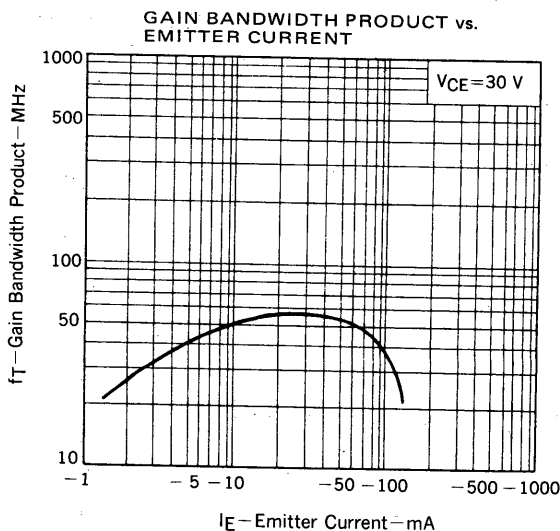
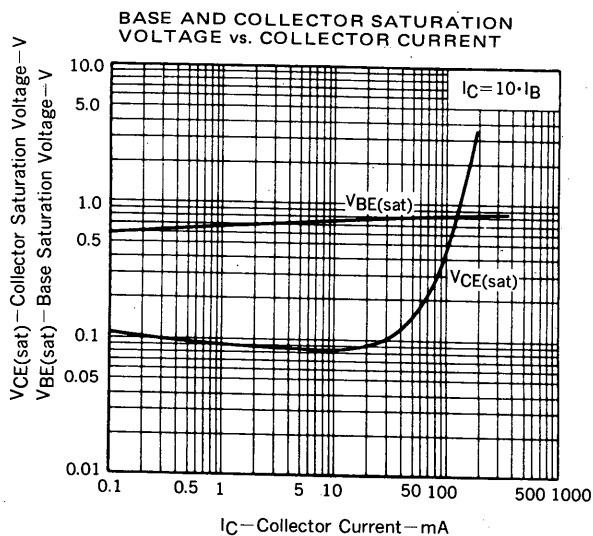
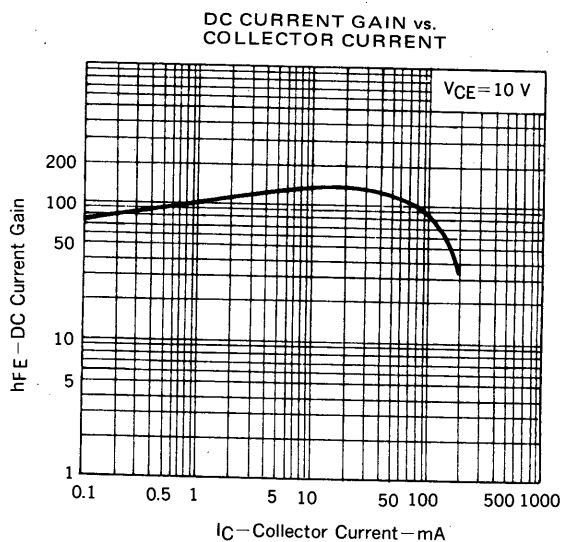
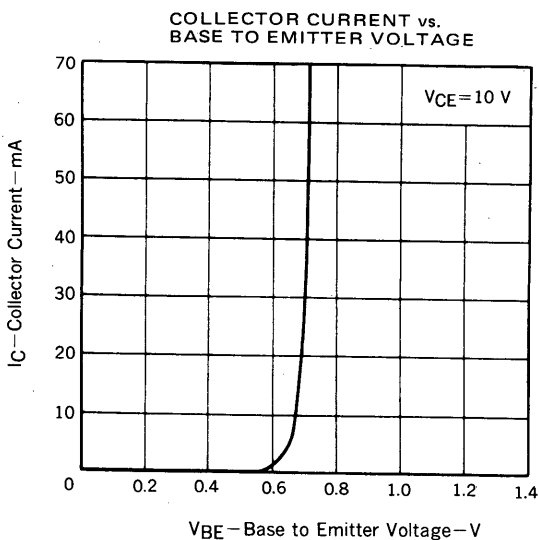
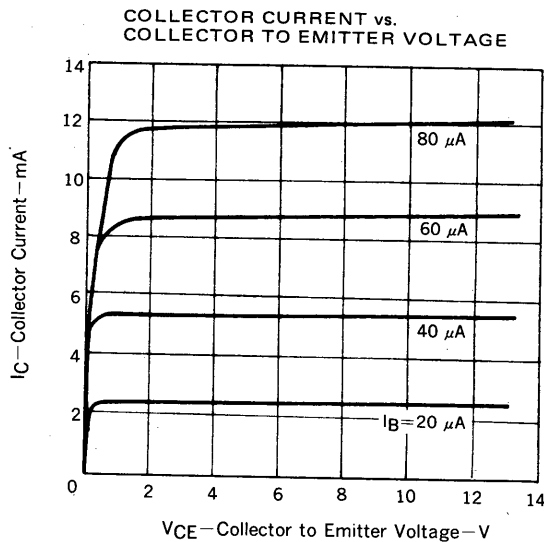
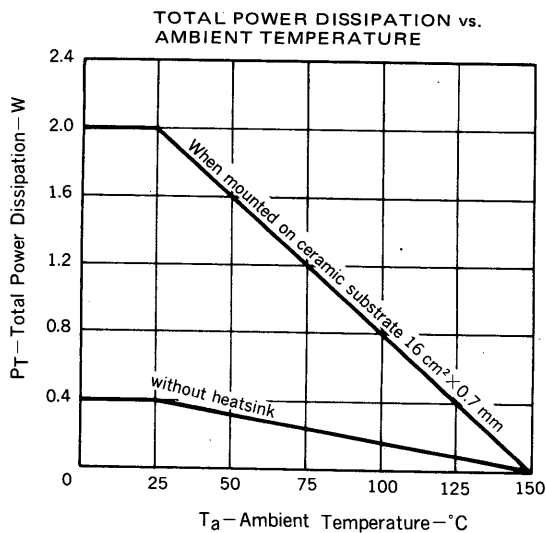
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CBO}			100	nA	$V_{CB} = 200\text{ V}, I_E = 0$
Emitter Cutoff Current	I_{EBO}			100	nA	$V_{EB} = 5.0\text{ V}, I_C = 0$
DC Current Gain	h_{FE}^{**}	60	150	250		$V_{CE} = 10\text{ V}, I_C = 10\text{ mA}$
Collector Saturation Voltage	$V_{CE(sat)}^{**}$		0.15	1.5	V	$I_C = 50\text{ mA}, I_B = 5.0\text{ mA}$
Gain Bandwidth Product	f_T		50		MHz	$V_{CE} = 30\text{ V}, I_E = -10\text{ mA}$
Output Capacitance	C_{ob}		2.8	3.5	pF	$V_{CB} = 30\text{ V}, I_E = 0, f = 1.0\text{ MHz}$

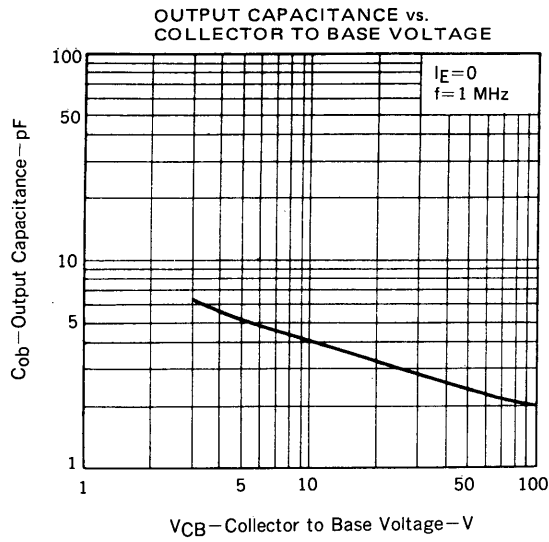
**Pulsed: $PW \leq 350\ \mu\text{s}$, Duty Cycle $\leq 2\%$

h_{FE} Classification

MARKING	SM	SL	SK
h_{FE}	60 to 120	100 to 200	160 to 250

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)





REFERENCE

Document Name	Document No.
NEC semiconductor device reliability/quality control system.	TEI-1202
Quality grade on NEC semiconductor devices.	IEI-1209
Semiconductor device mounting technology manual.	IEI-1207
Semiconductor device package manual.	IEI-1213
Guide to quality assurance for semiconductor devices.	MEI-1202
Semiconductor selection guide.	MF-1134

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