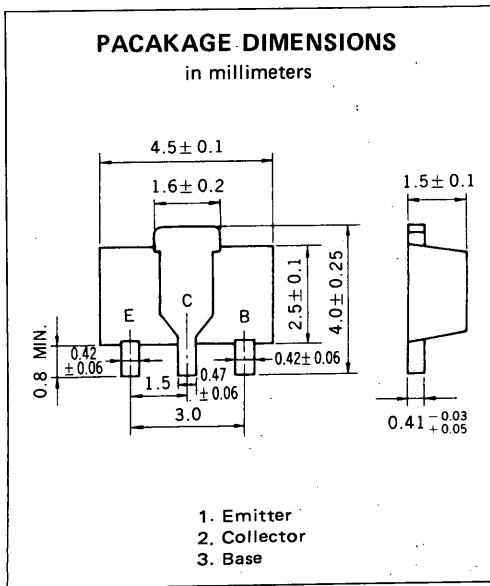


NPN SILICON EPITAXIAL TRANSISTOR  
POWER MINI MOLD

DESCRIPTION

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



FEATURES

- World Standard Miniature Package
- High Voltage :  $V_{CE0} = 300$  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 $25^\circ\text{C}$ 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 ( $T_a = 25^\circ\text{C}$ )

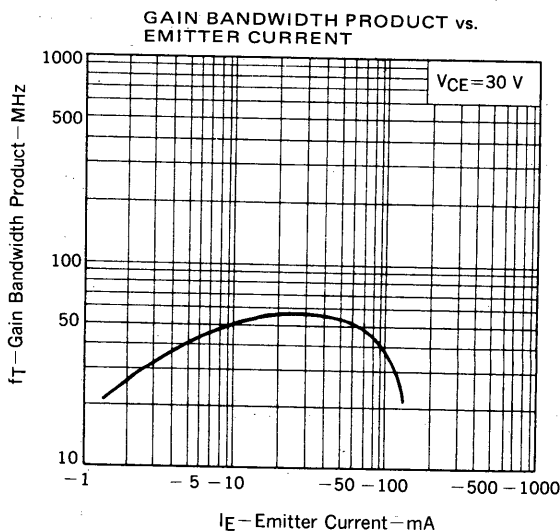
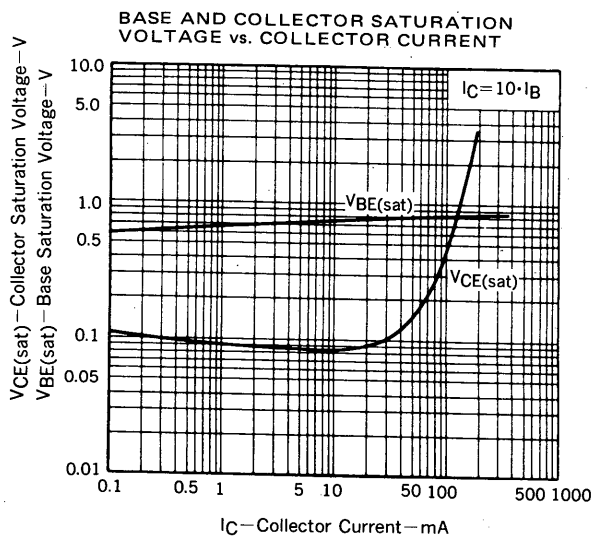
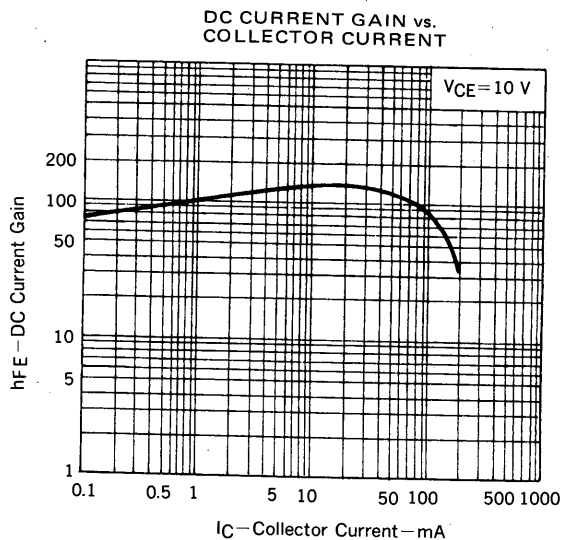
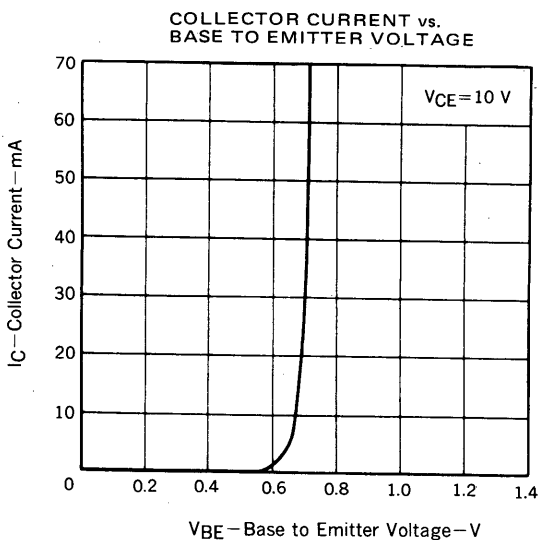
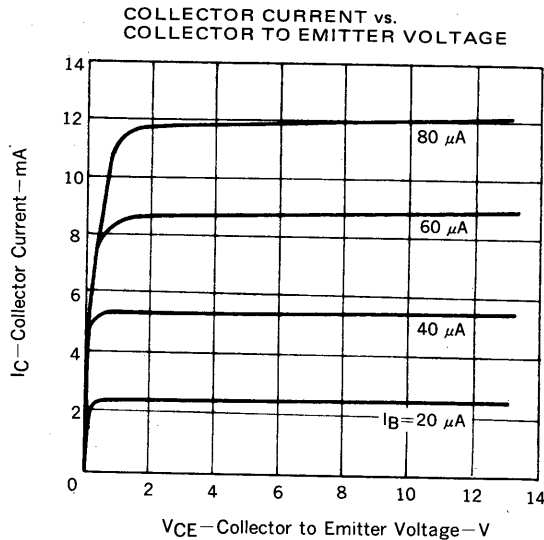
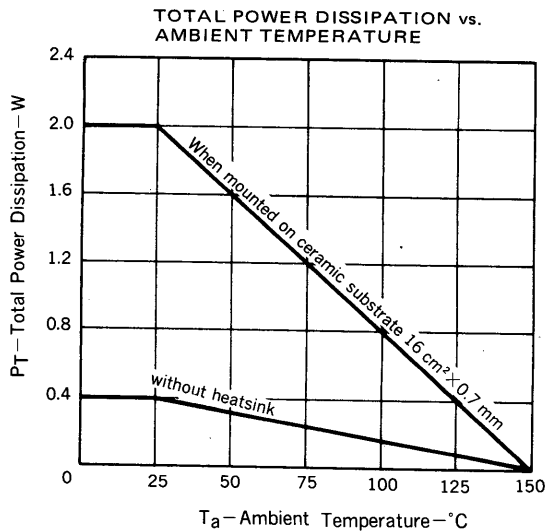
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	$I_{CBO}$			100	nA	$V_{CB} = 200\text{ V}, I_E = 0$
Emitter Cutoff Current	$I_{EBO}$			100	nA	$V_{EB} = 5.0\text{ V}, I_C = 0$
DC Current Gain	$h_{FE}^{**}$	60	150	250		$V_{CE} = 10\text{ V}, I_C = 10\text{ mA}$
Collector 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	$V_{CB} = 30\text{ V}, I_E = 0, f = 1.0\text{ MHz}$

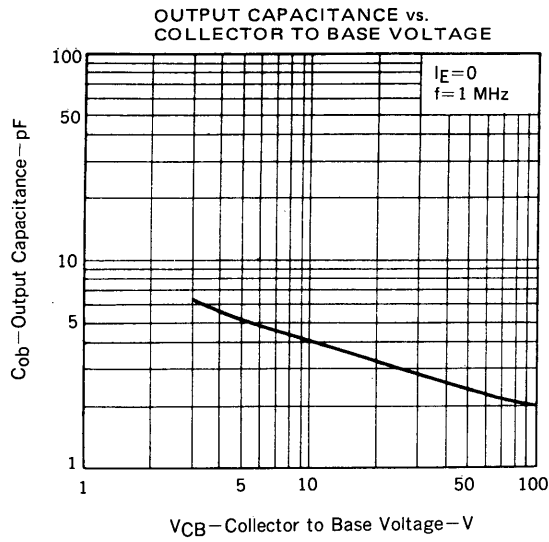
\*\*Pulsed:  $PW \leq 350\ \mu\text{s}$ , Duty Cycle  $\leq 2\%$

$h_{FE}$  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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