
2SC3553

Silicon NPN Epitaxial

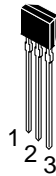
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Application

Low frequency amplifier

Outline

SPAK



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	35	V
Collector to emitter voltage	V_{CEO}	35	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_{C}	500	mA
Collector power dissipation	P_{C}	300	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

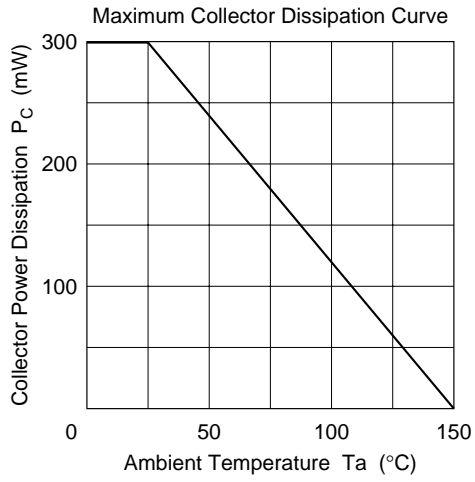
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	35	—	—	V	$I_{\text{C}} = 10 \mu\text{A}$, $I_{\text{E}} = 0$
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	35	—	—	V	$I_{\text{C}} = 1 \text{ mA}$, $R_{\text{BE}} = \infty$
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	4	—	—	V	$I_{\text{E}} = 10 \mu\text{A}$, $I_{\text{C}} = 0$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{\text{CB}} = 20 \text{ V}$, $I_{\text{E}} = 0$
DC current transfer ratio	h_{FE1}^{*1}	60	—	320		$V_{\text{CE}} = 3 \text{ V}$, $I_{\text{C}} = 10 \text{ mA}$
	h_{FE2}	10	—	—		$V_{\text{CE}} = 3 \text{ V}$, $I_{\text{C}} = 500 \text{ mA}^{*2}$
Collector to emitter saturation voltage	$V_{\text{CE}(\text{sat})}$	—	0.2	0.6	V	$I_{\text{C}} = 150 \text{ mA}$, $I_{\text{B}} = 15 \text{ mA}^{*2}$
Base to emitter voltage	V_{BE}	—	0.64	—	V	$V_{\text{CE}} = 3 \text{ V}$, $I_{\text{C}} = 10 \text{ mA}$

Notes: 1. The 2SC3553 is grouped by h_{FE1} as follows.

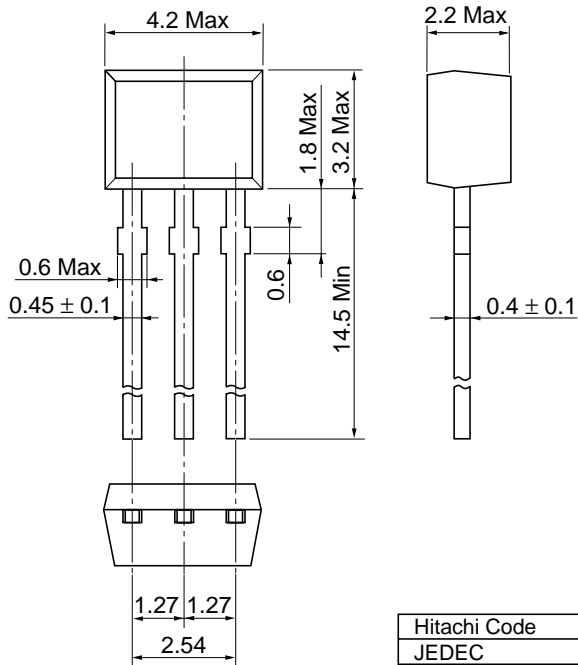
2. Pulse test

B	C	D
60 to 120	100 to 200	160 to 320

See characteristic curves of 2SC1213.



Unit: mm



Hitachi Code	SPAK
JEDEC	—
EIAJ	—
Weight (reference value)	0.10 g

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