
2SA1566

Silicon PNP Epitaxial

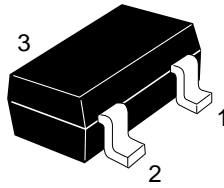
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Application

Low frequency amplifier

Outline

MPAK



- 1. Emitter
- 2. Base
- 3. Collector

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

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-120	V
Collector to emitter voltage	V_{CEO}	-120	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_{C}	-100	mA
Collector power dissipation	P_{C}	150	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

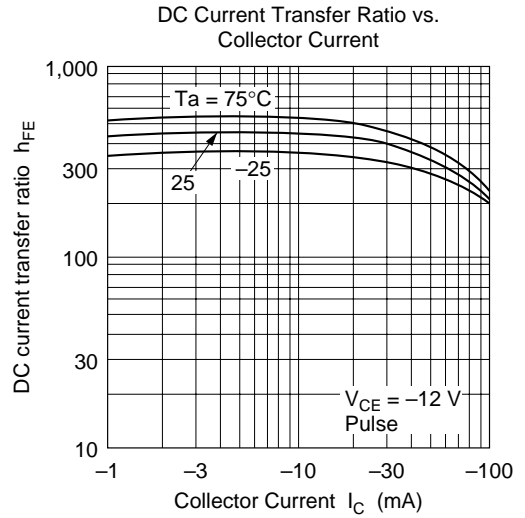
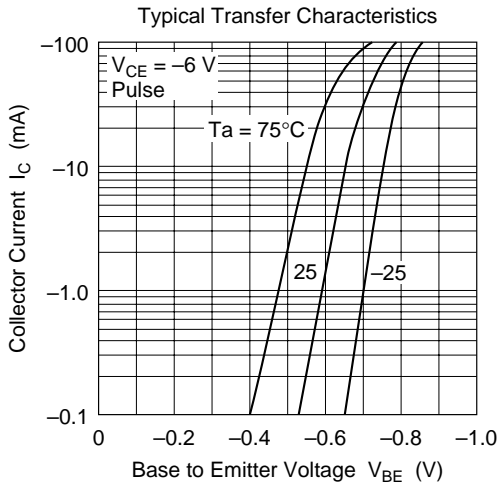
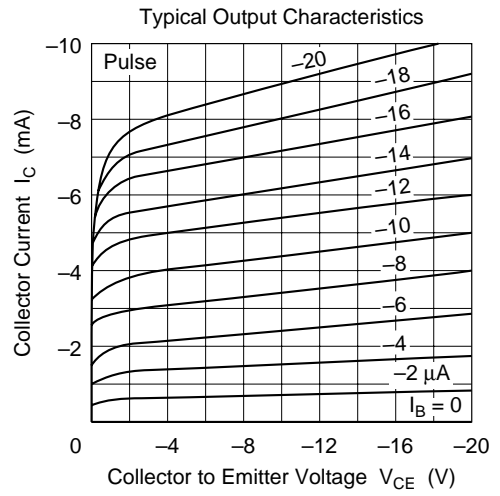
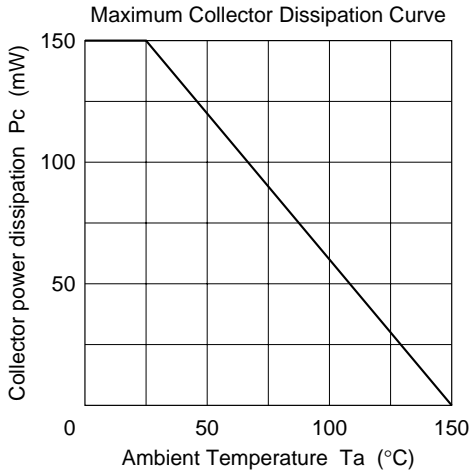
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	-120	—	—	V	$I_{\text{C}} = -10 \mu\text{A}$, $I_{\text{E}} = 0$
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	-120	—	—	V	$I_{\text{C}} = -1 \text{ mA}$, $R_{\text{BE}} = \infty$
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	-5	—	—	V	$I_{\text{E}} = -10 \mu\text{A}$, $I_{\text{C}} = 0$
Collector cutoff current	I_{CBO}	—	—	-0.1	μA	$V_{\text{CB}} = -70 \text{ V}$, $I_{\text{E}} = 0$
Emitter cutoff current	I_{EBO}	—	—	-0.1	μA	$V_{\text{EB}} = -2 \text{ V}$, $I_{\text{C}} = 0$
DC current transfer ratio	h_{FE}^{*1}	250	—	800		$V_{\text{CE}} = -12 \text{ V}$, $I_{\text{C}} = -2 \text{ mA}^{*2}$
Collector to emitter saturation voltage	$V_{\text{CE}(\text{sat})}$	—	—	-0.15	V	$I_{\text{C}} = -10 \text{ mA}$, $I_{\text{B}} = -1 \text{ mA}^{*2}$
Base to emitter voltage	$V_{\text{BE}(\text{sat})}$	—	—	-1.0	V	$I_{\text{C}} = -10 \text{ mA}$, $I_{\text{B}} = -1 \text{ mA}^{*2}$

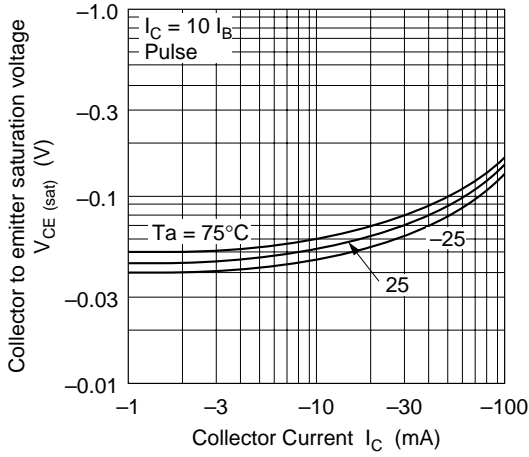
Notes: 1. The 2SA1566 is grouped by h_{FE} as follows.

2. Pulse test

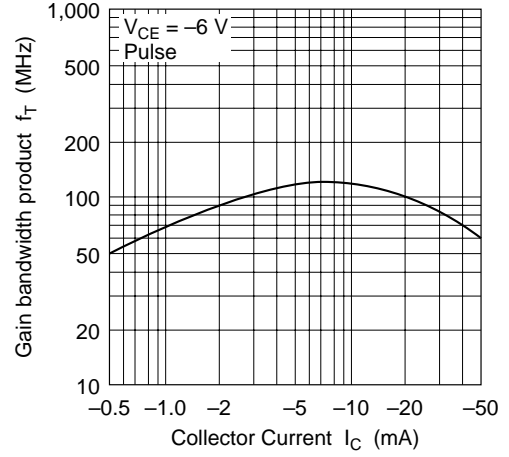
Grade	D	E
Mark	JID	JIE
h_{FE}	250 to 500	400 to 800



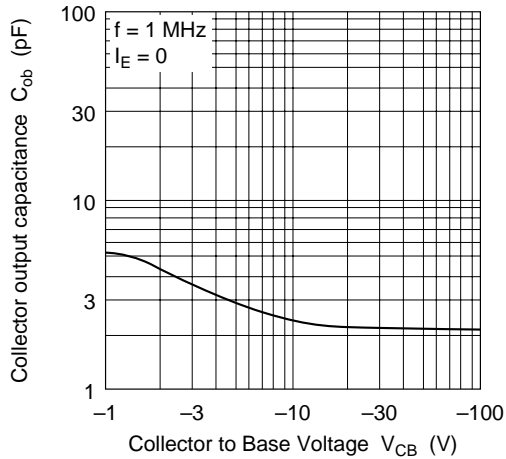
Collector to Emitter Saturation Voltage vs. Collector Current

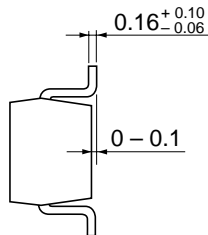
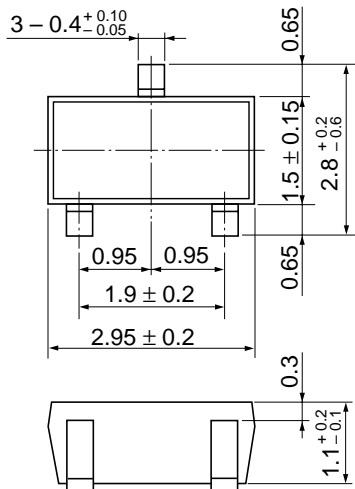


Gain Bandwidth Product vs. Collector Current



Collector Output Capacitance vs. Collector to Base Voltage





Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.011 g

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