

2SC4500(L)/(S)

Silicon NPN Epitaxial

HITACHI

ADE-208-894 (Z)

1st. Edition

Sep. 2000

Application

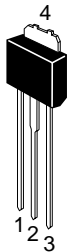
Low frequency amplifier

Outline

DPAK

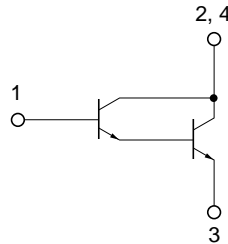


S Type



L Type

1. Base
2. Collector
3. Emitter
4. Collector



Absolute Maximum Ratings (Ta = 25°C)

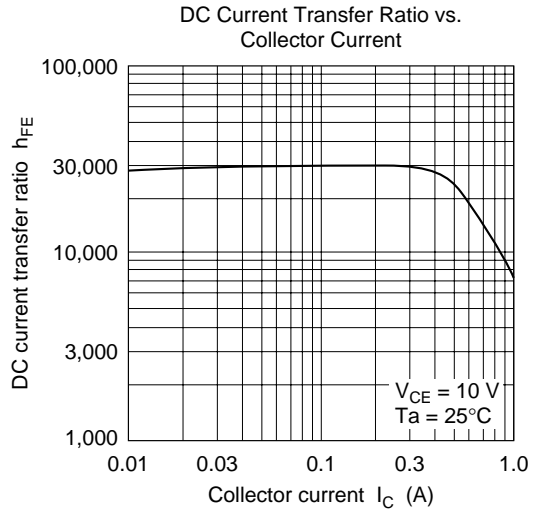
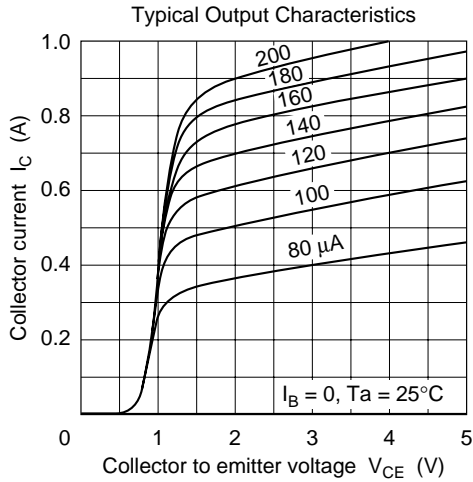
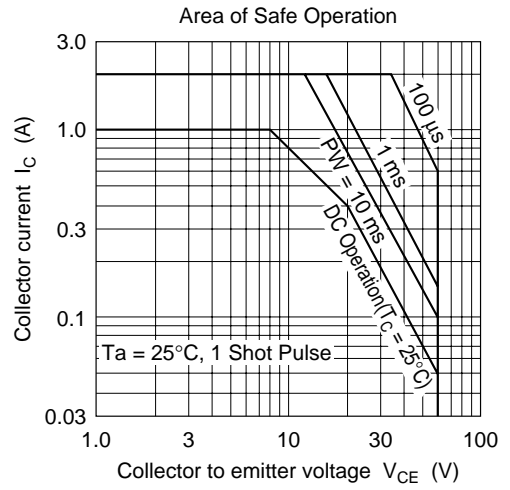
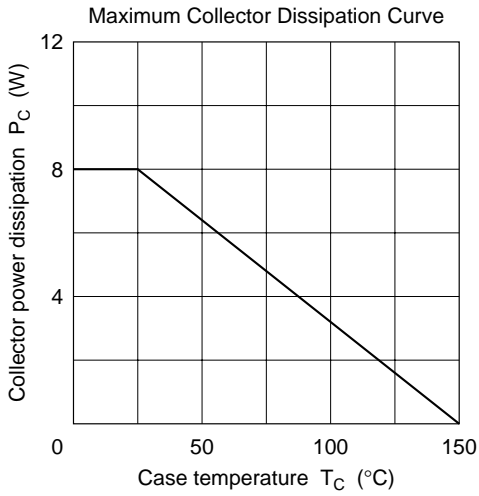
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	60	V
Emitter to base voltage	V_{EBO}	7	V
Collector current	I_C	1	A
Collector peak current	$I_{C(peak)}$	2	A
Collector power dissipation	P_C	0.8	W
	P_C^{*1}	8	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

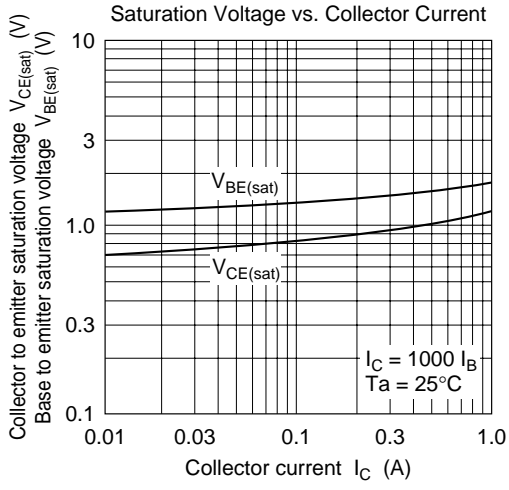
Note: 1. Value at $T_C = 25^\circ\text{C}$.

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	V	$I_C = 1\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	7	—	—	V	$I_E = 0.1\text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	10	μA	$V_{CB} = 60\text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE}	2000	—	—		$V_{CE} = 10\text{ V}$, $I_C = 500\text{ mA}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.5	V	$I_C = 500\text{ mA}$, $I_B = 0.5\text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	2.0	V	$I_C = 500\text{ mA}$, $I_B = 0.5\text{ mA}^{*1}$
Turn on time	t_{on}	—	100	—	ns	$V_{CC} = 12\text{ V}$, $I_C = 250\text{ mA}$,
Turn off time	t_{off}	—	600	—	ns	$I_{B1} = -I_{B2} = 5\text{ mA}$

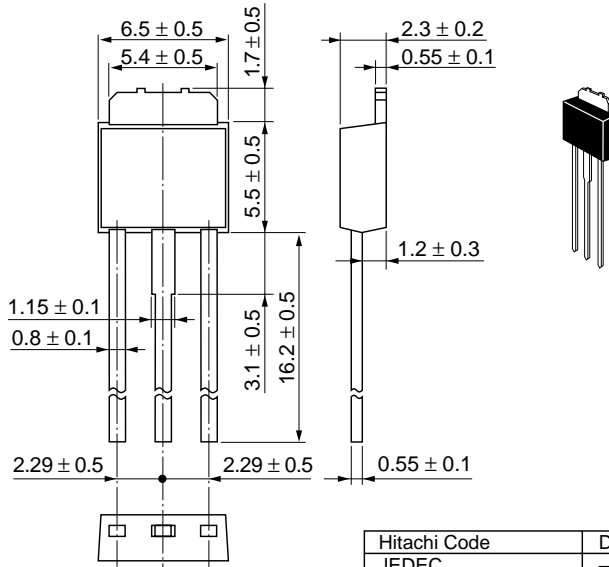
Note: 1. Pulse Test.





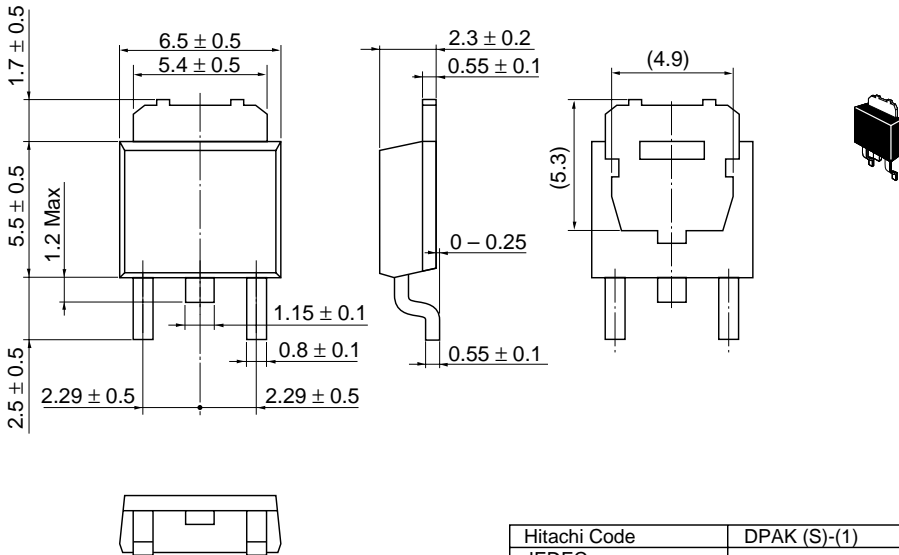
Package Dimensions

Unit: mm



Hitachi Code	DPAK (L)-(1)
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.42 g

Unit: mm



Hitachi Code	DPAK (S)-(1)
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.28 g

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