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# 2SC4500(L)/(S)

Silicon NPN Epitaxial

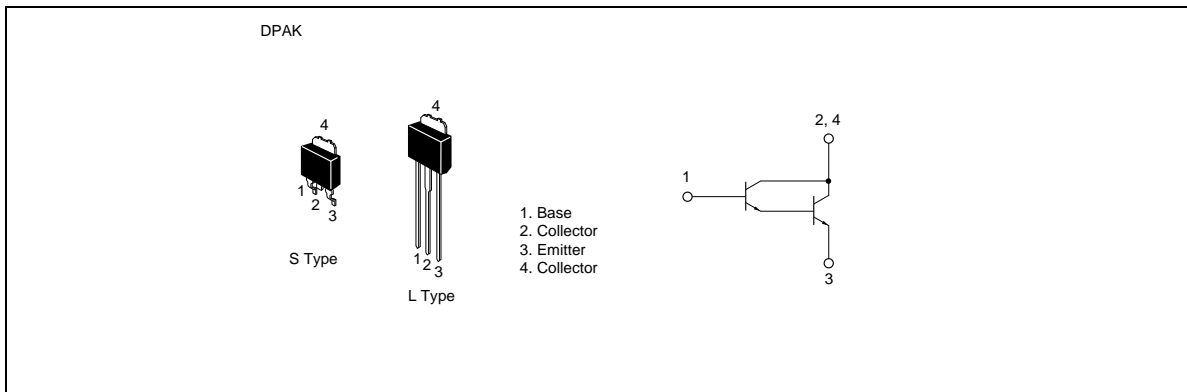
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### Application

Low frequency amplifier

### Outline



## 2SC4500(L)/(S)

### Absolute Maximum Ratings (Ta = 25°C)

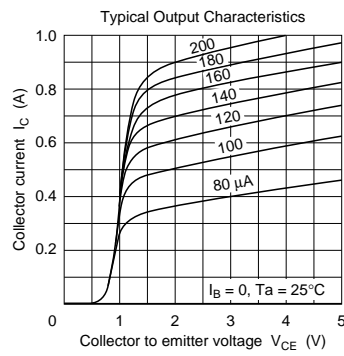
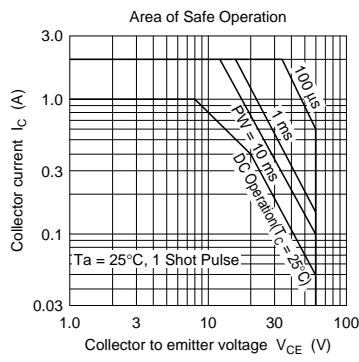
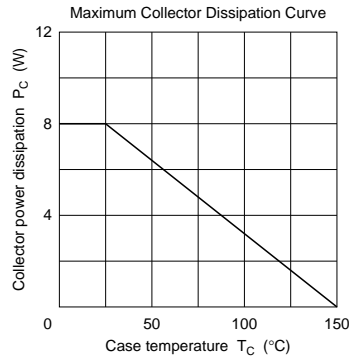
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	60	V
Collector to emitter voltage	$V_{CEO}$	60	V
Emitter to base voltage	$V_{EBO}$	7	V
Collector current	$I_C$	1	A
Collector peak current	$I_{C (peak)}$	2	A
Collector power dissipation	$P_C$	0.8	W
	$P_C^{*1}$	8	
Junction temperature	$T_j$	150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

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

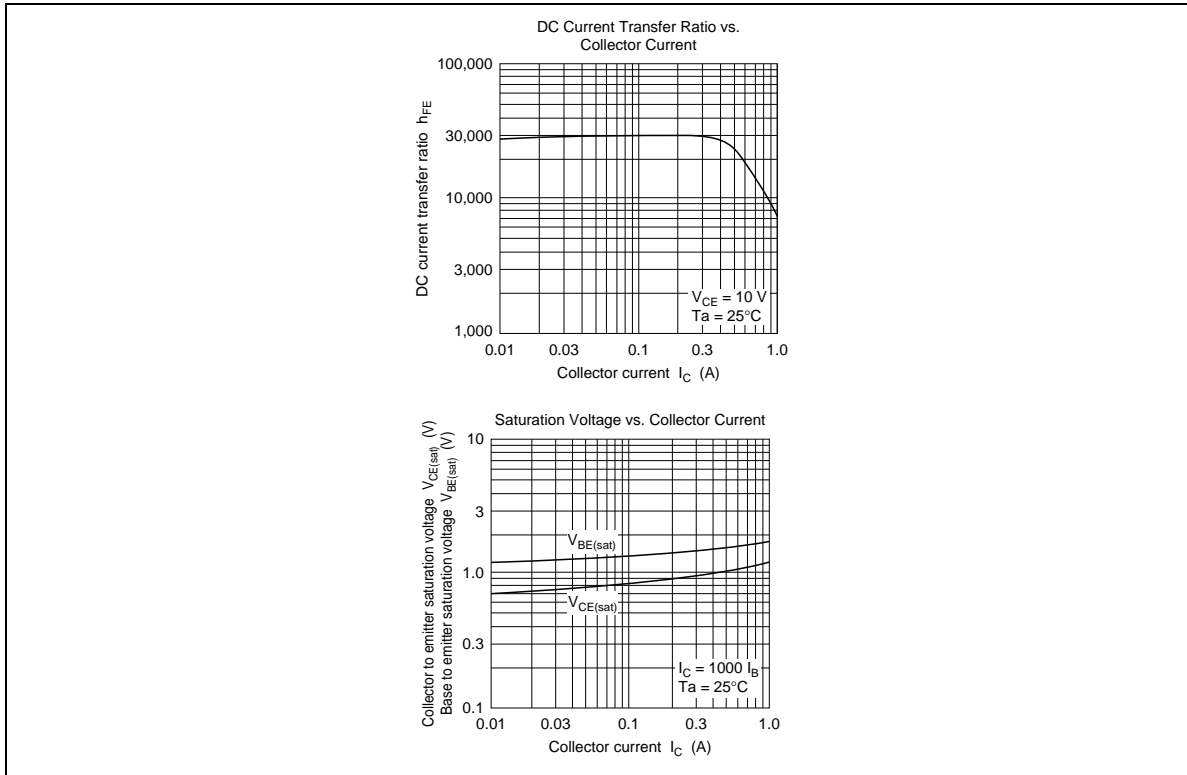
### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \_$
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	$\mu\text{A}$	$V_{CB} = 60 \text{ V}, I_E = 0$
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	$V_{CC} = 12 \text{ V}, I_C = 250 \text{ mA}, I_{B1} = -I_{B2} = 5 \text{ mA}$
Turn off time	$t_{off}$	—	600	—	ns	

Note: 1. Pulse Test.



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