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# 2SD2115(L)/(S)

Silicon NPN Epitaxial Planar

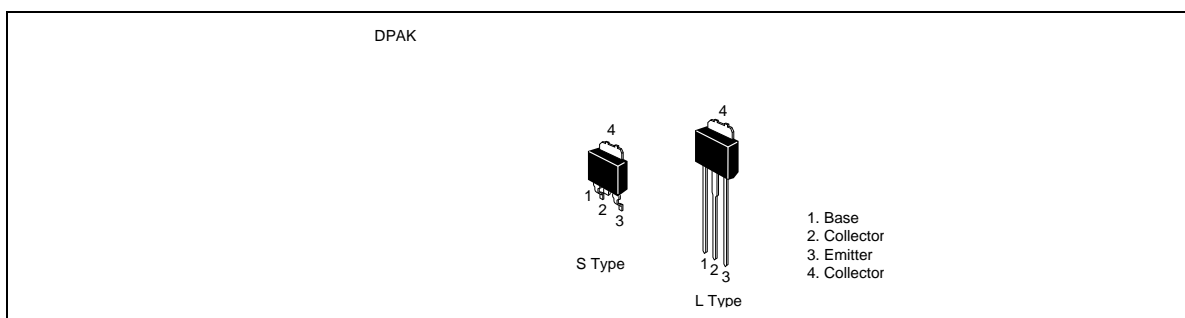
## HITACHI

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### Application

Low frequency power amplifier

### Outline



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

Item	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	150	V
Collector to emitter voltage	$V_{CEO}$	60	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	2	A
Collector peak current	$I_{C(peak)}$	2.5	A
Collector power dissipation	$P_C^{*1}$	18	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

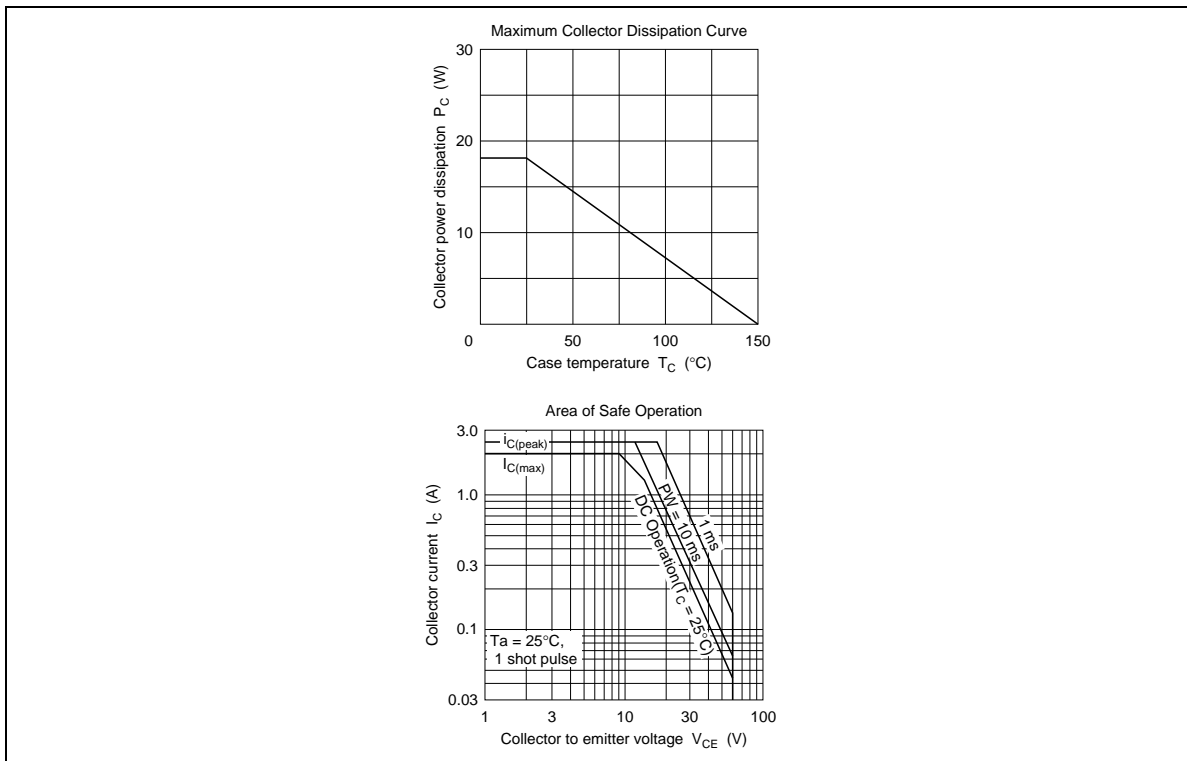
Note: 1. Value at  $T_c = 25^\circ\text{C}$ .

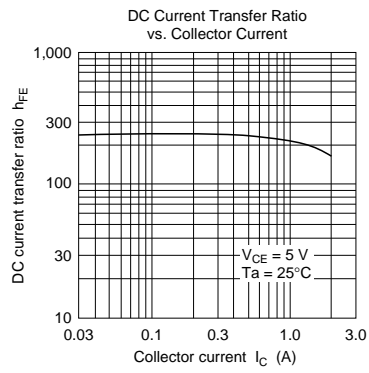
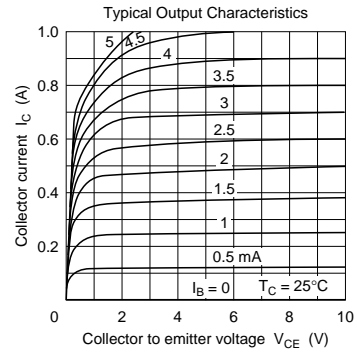
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### Electrical Characteristics (Ta = 25°C)

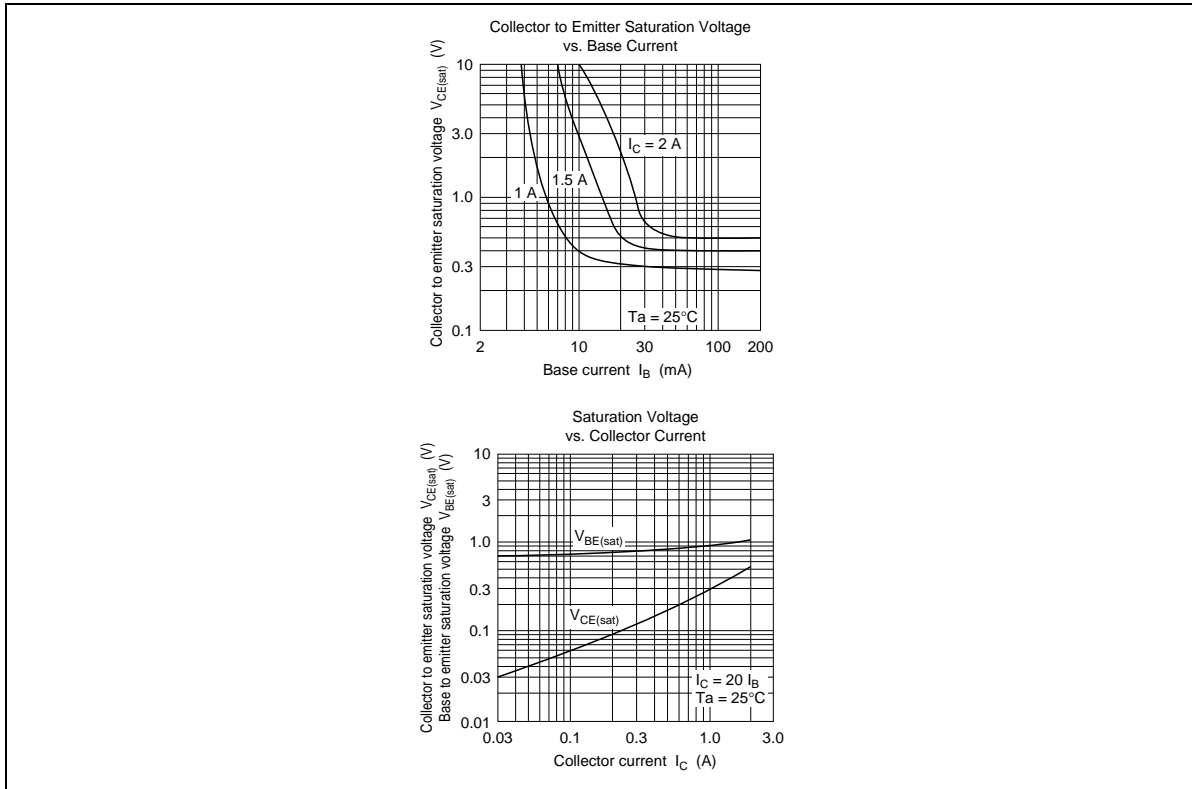
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	150	—	—	V	$I_C = 1 \text{ mA}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	V	$I_C = 10 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 1 \text{ mA}, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	10	$\mu\text{A}$	$V_{CB} = 100 \text{ V}, I_E = 0$
DC current transfer ratio	$h_{FE}$	150	—	—		$V_{CE} = 5 \text{ V}, I_C = 1.5 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.8	V	$I_C = 1.5 \text{ A}, I_B = 0.05 \text{ A}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.3	V	$I_C = 1.5 \text{ A}, I_B = 0.05 \text{ A}^{*1}$
Fall time	$t_f$	—	—	0.6	$\mu\text{s}$	$I_C = 1.5 \text{ A}, I_{B1} = -I_{B2} = 50 \text{ mA}$

Note: 1. Pulse test.





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