
2SD2115(L)/(S)

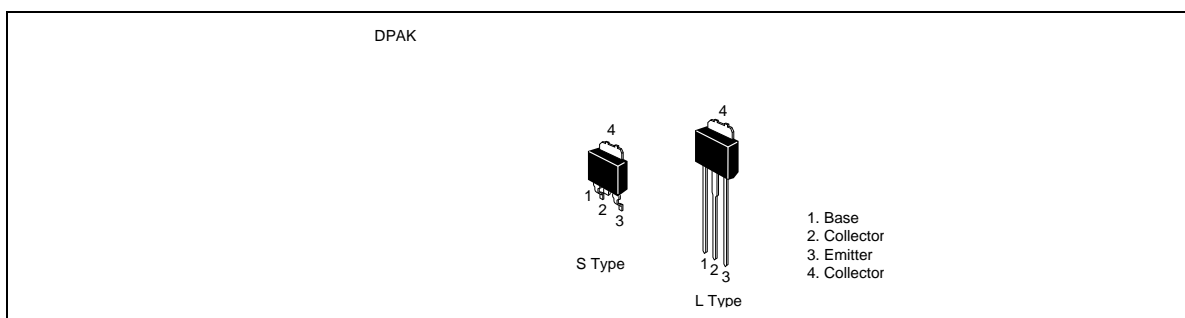
Silicon NPN Epitaxial Planar

HITACHI

Application

Low frequency power amplifier

Outline



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

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	$I_{\text{C(peak)}}$	2.5	A
Collector power dissipation	P_{C}^{*1}	18	W
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

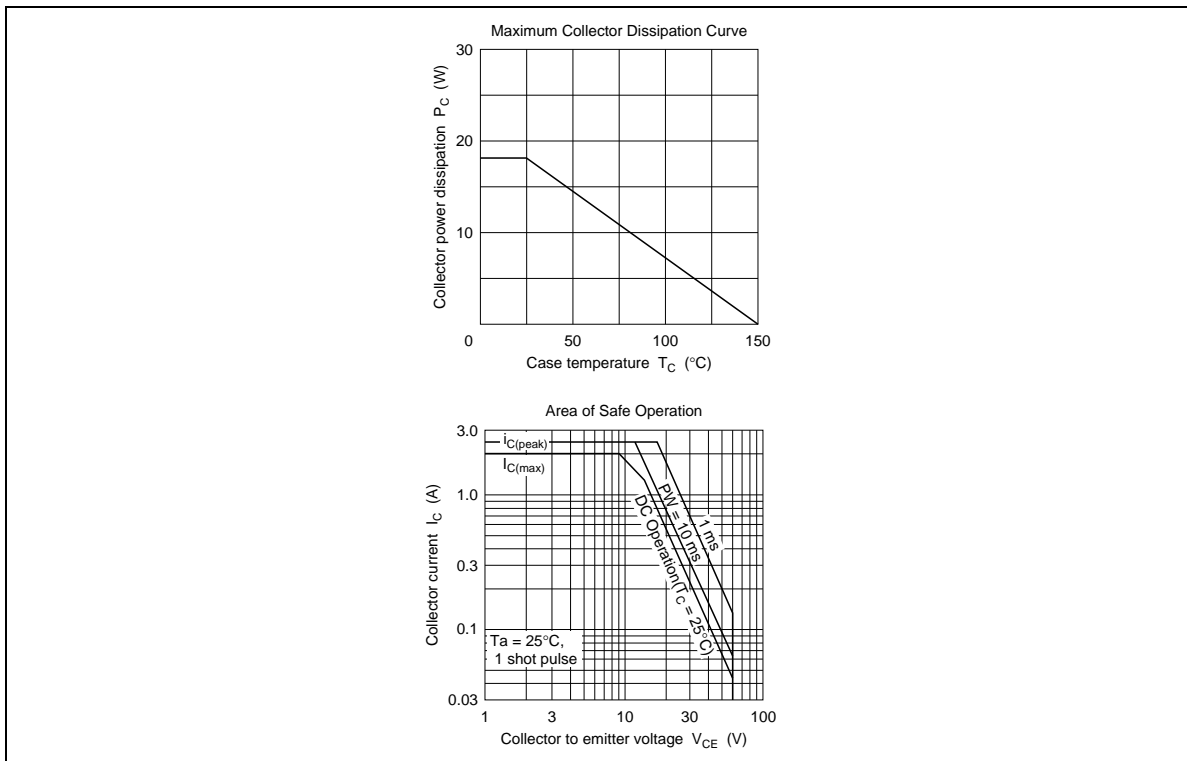
Note: 1. Value at $T_{\text{c}} = 25^\circ\text{C}$.

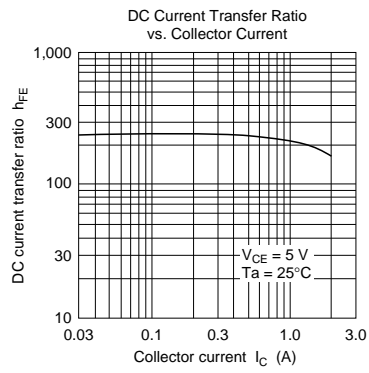
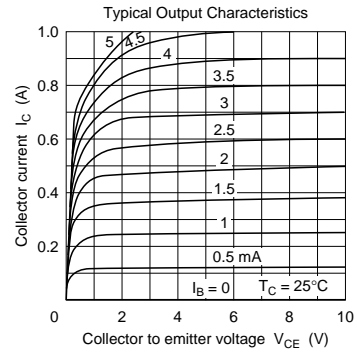
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Electrical Characteristics (Ta = 25°C)

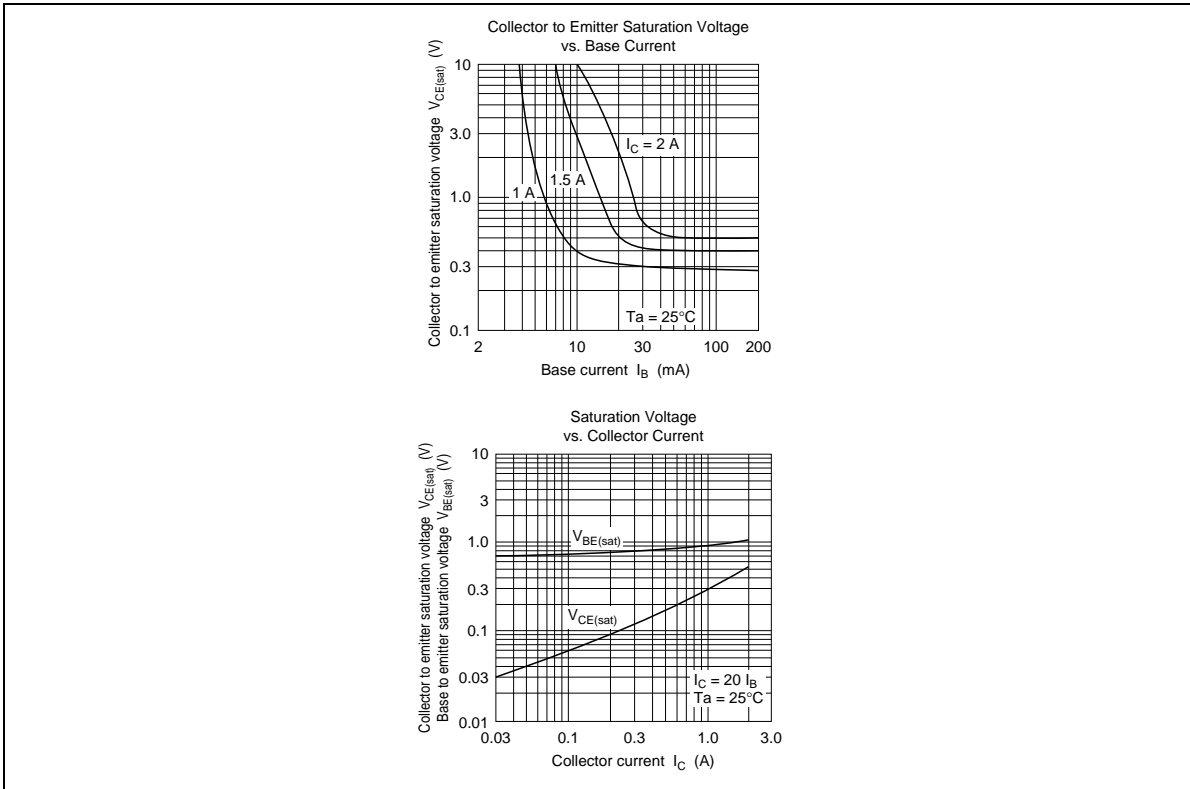
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	150	—	—	V	$I_C = 1 \text{ mA}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	V	$I_C = 10 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 1 \text{ mA}, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	10	μA	$V_{CB} = 100 \text{ V}, I_E = 0$
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	μs	$I_C = 1.5 \text{ A}, I_{B1} = -I_{B2} = 50 \text{ mA}$

Note: 1. Pulse test.





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