HITACHI

2SD2115Ⓛ/Ⓢ

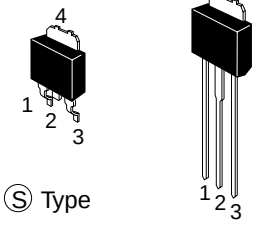
Silicon NPN Epitaxial Planar
Low Frequency Power Amplifier

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	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Note: 1. Value at T_C = 25°C.

DPAK



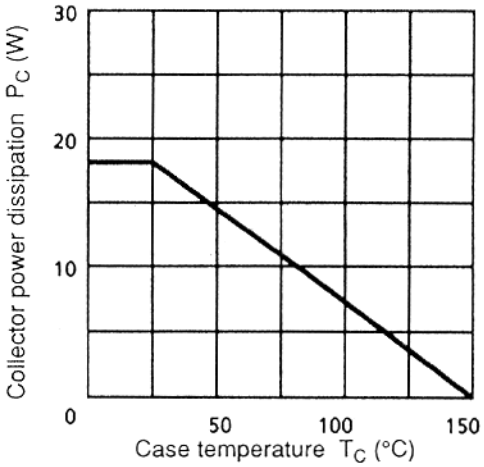
1. Base
2. Collector
3. Emitter
4. Collector

Electrical Characteristics (Ta = 25°C)

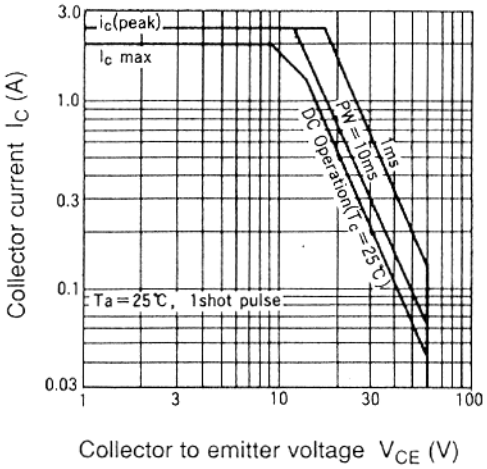
Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	150	—	—	V	I_C = 1 mA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	V	I_C = 10 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	I_E = 1 mA, I_C = 0
Collector cutoff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

Note: 1. Pulse Test.

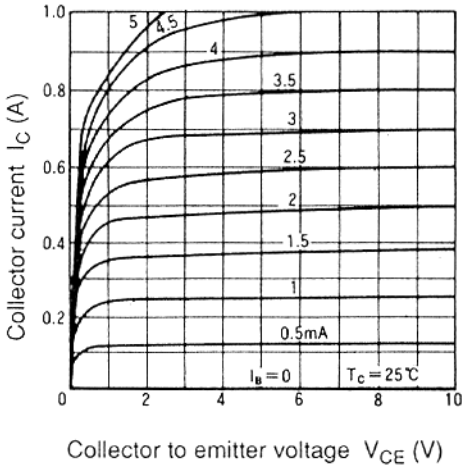
Maximum Collector Dissipation Curve



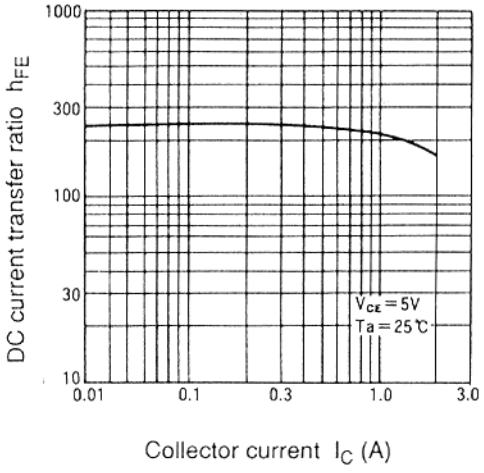
Area of Safe Operation



Typical Output Characteristics

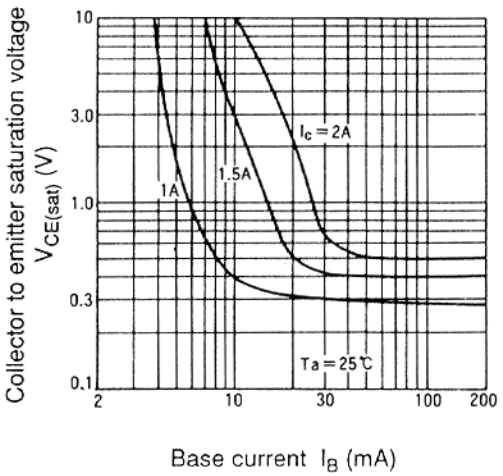


DC Current Transfer Ratio vs. Collector Current



2SD2115 (L)/(S)

Collector to Emitter Saturation Voltage vs. Base Current



Saturation Voltage vs. Collector Current