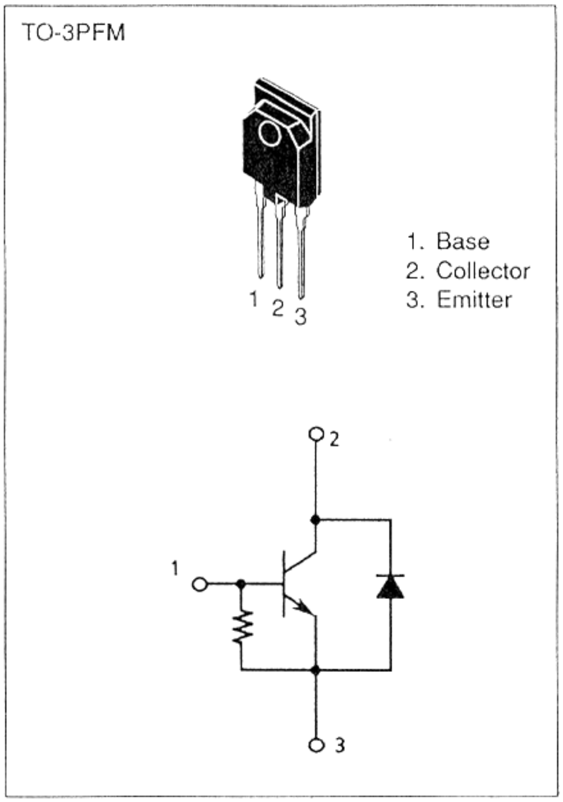
HITACHI

2SC4744

Silicon NPN Triple Diffused
Character Display Horizontal Deflection Output

Feature

- High breakdown voltage
  V_{CES} = 1500 V
- Built-in dampen diode type
- Isolated package; TO-3PFM



Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to emitter voltage	V_{CES}	1500	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	6	A
Collector peak current	$i_{C(peak)}$	7	A
Collector surge current	$i_{C(surge)}$	16	A
Collector power dissipation	P_C^{*1}	50	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C
C to E diode forward current	I_D	7	A

Note: 1. Value at T_C = 25°C.

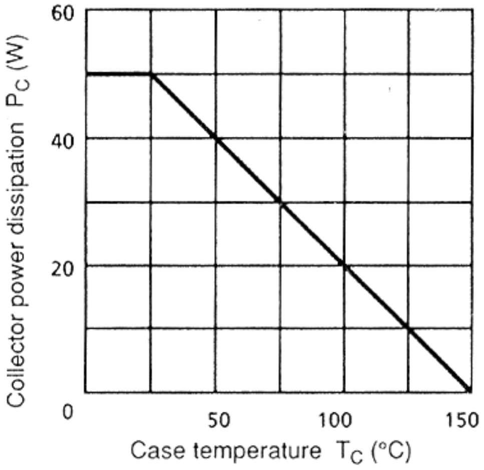
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	I_E = 400 mA, I_C = 0
Collector cutoff current	I_{CES}	—	—	500	µA	V_{CE} = 1500 V, R_{BE} = 0
DC current transfer ratio	h_{FE}	—	—	25		V_{CE} = 5 V, I_C = 1 A
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	2.0	V	I_C = 5 A, I_B = 1.25 A
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	I_C = 5 A, I_B = 1.25 A
C to E diode forward voltage	V_{ECF}	—	—	2.0	V	I_F = 6 A

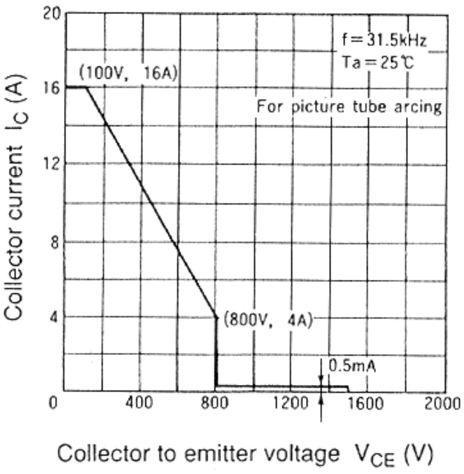
Electrical Characteristics (Ta = 25°C) (cont)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Fall time	t_f	—	—	0.4	µs	I_{CP} = 5 A, I_{B1} = 1 A I_{B2} = –2 A

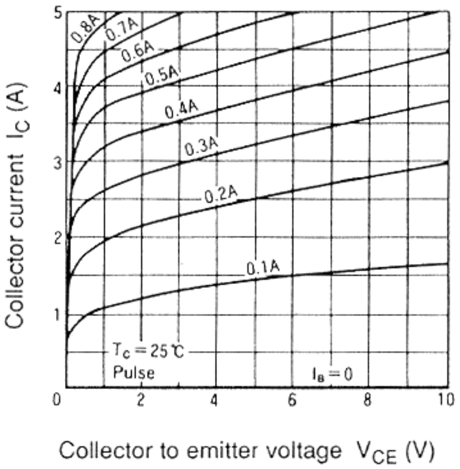
Maximum Collector Power Dissipation Curve



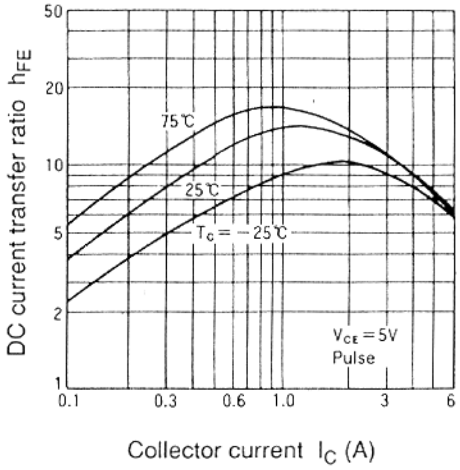
Area of Safe Operation



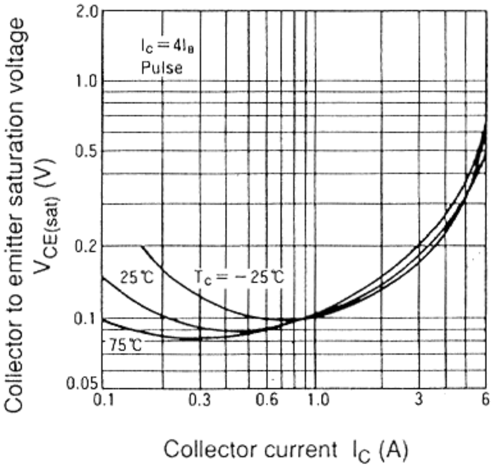
Typical Output Characteristics



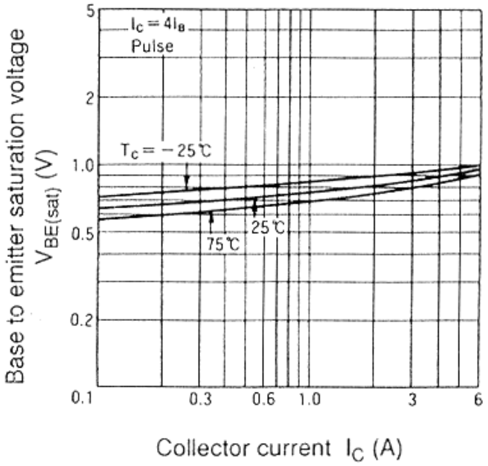
DC Current Transfer Ratio vs. Collector Current



Collector to Emitter Saturation Voltage vs. Collector Current



Base to Emitter Saturation Voltage vs. Collector Current



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Collector to Emitter Saturation Voltage vs. Base Current