
2SC4589

Silicon NPN Triple Diffused

HITACHI

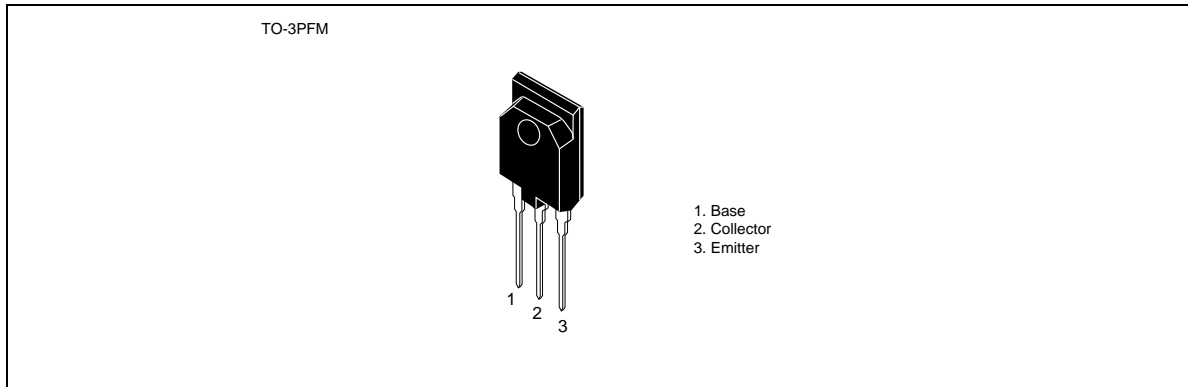
Application

CTV/character display horizontal deflection output

Features

- High speed switching $t_f \leq 0.5 \mu\text{s}$
- High breakdown voltage $V_{\text{CBO}} = 1500 \text{ V}$
- Isolated package; TO-3PFM

Outline



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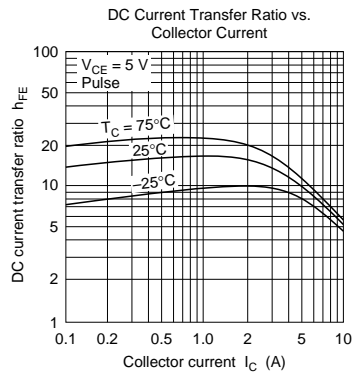
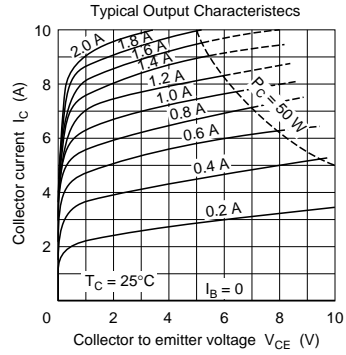
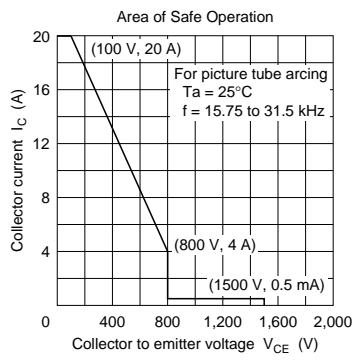
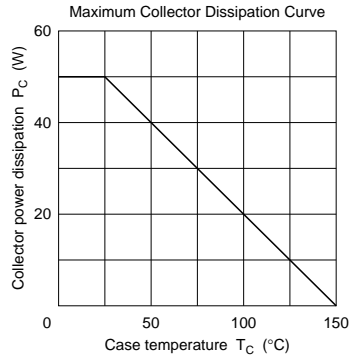
Absolute Maximum Ratings (Ta = 25°C)

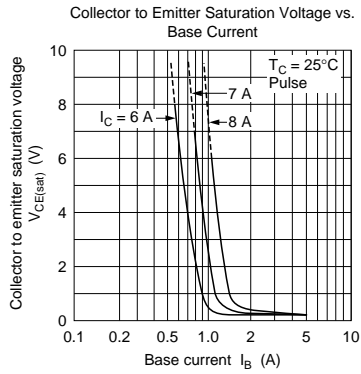
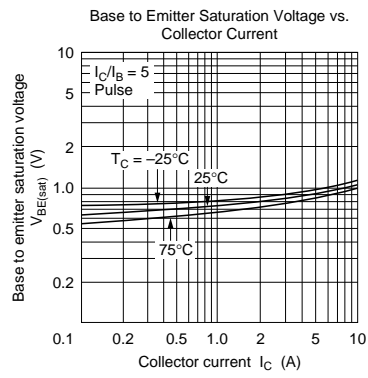
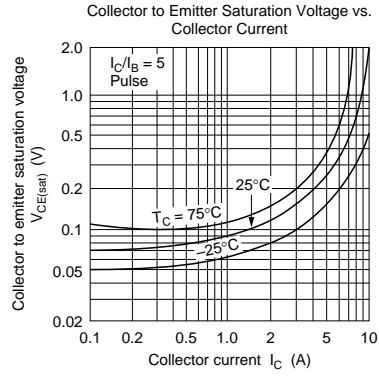
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	1500	V
Collector to emitter voltage	V_{CEO}	800	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	10	A
Collector surge current	$I_{C(surge)}$	20	A
Collector power dissipation	P_C^{*1}	50	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-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	$V_{(BR)CEO}$	800	—	—	V	$I_C = 10\text{ mA}$, $R_{BE} = _$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10\text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CES}	—	—	500	μA	$V_{CE} = 1500\text{ V}$, $R_{BE} = 0$
DC current transfer ratio	h_{FE}	8	—	38		$V_{CE} = 5\text{ V}$, $I_C = 1\text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	$I_C = 8\text{ A}$, $I_B = 1.6\text{ A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C = 8\text{ A}$, $I_B = 1.6\text{ A}$
Fall time	t_f	—	0.2	0.5	μs	$I_{CP} = 7\text{ A}$, $I_{B1} = 1.4\text{ A}$





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