
2SC5058

Silicon NPN Triple Diffused Planar

HITACHI

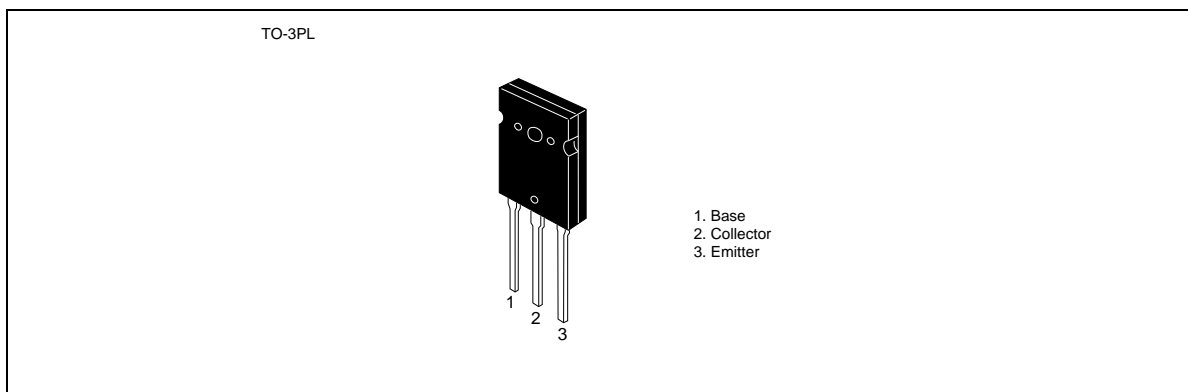
Application

Character display horizontal deflection output

Features

- High speed switching
 $t_r \leq 0.3 \mu\text{sec}$
- High breakdown voltage
 $V_{\text{CBO}} = 1700 \text{ V}$

Outline



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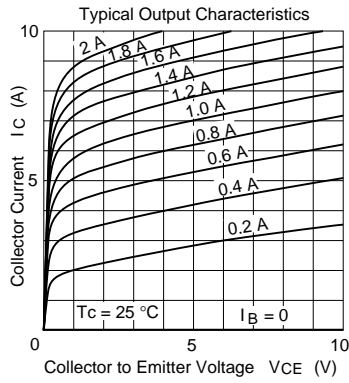
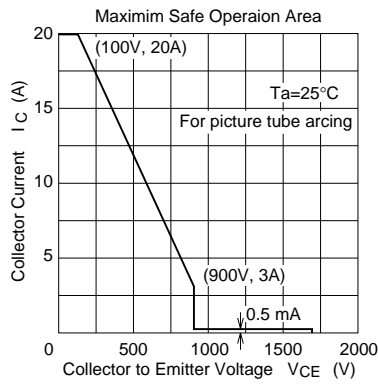
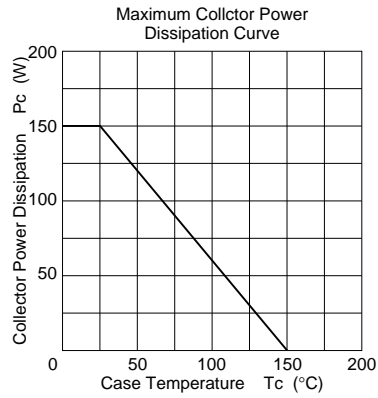
Absolute Maximum Ratings (Ta = 25°C)

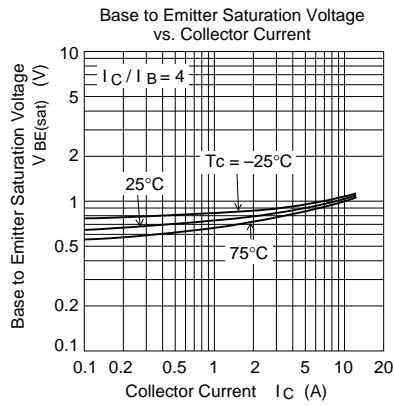
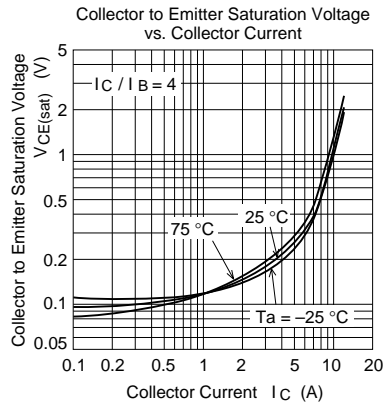
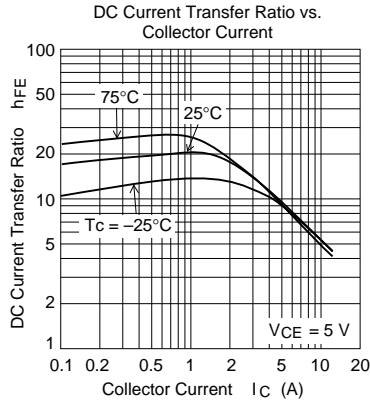
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	1700	V
Collector to emitter voltage	V_{CEO}	900	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	12	A
Collector surge current	$I_{C(surge)}$	20	A
Collector power dissipation	P_C^{*1}	150	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

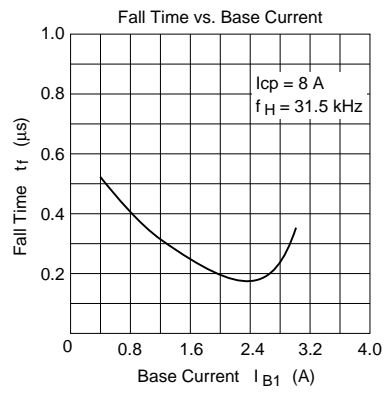
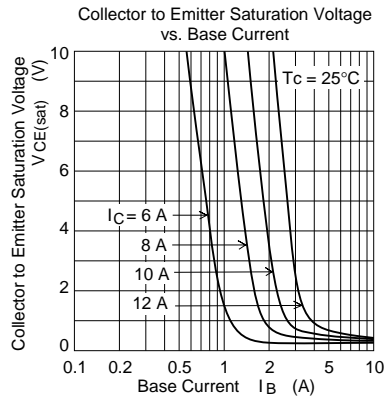
Note: 1. Value at $T_C = 25^\circ\text{C}$

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	900	—	—	V	$I_C = 10\text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10\text{ mA}, I_C = 0$
Collector to emitter cutoff current	I_{CES}	—	—	500	μA	$V_{CE} = 1700\text{ V}, R_{BE} = 0$
DC current transfer ratio	h_{FE}	—	—	35		$V_{CE} = 5\text{ V}, I_C = 1\text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	$I_C = 10\text{ A}, I_B = 2.5\text{ A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C = 10\text{ A}, I_B = 2.5\text{ A}$
Fall time	t_f	—	—	0.3	μsec	$I_{CP} = 8\text{ A}, I_{B1} = 2\text{ A}$ $I_{B2} = -3\text{ A}, f_H = 31.5\text{ kHz}$







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