2SC2979

Silicon NPN Triple Diffused

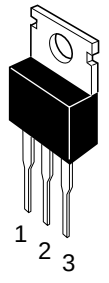
HITACHI

Application

High voltage, high speed and high power switching

Outline

TO-220AB



1. Base
2. Collector (Flange)
3. Emitter

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	900	V
Collector to emitter voltage	V_{CEO}	800	V
Emitter to base voltage	V_{EBO}	7	V
Collector current	I_C	3	A
Collector peak current	$I_{C(peak)}$	6	A
Base current	I_B	1.5	A
Collector power dissipation	P_C*[1]	40	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Note: 1. Value at T_C = 25°C.

Hitachi semiconductor

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter sustain voltage	$V_{CEO(sus)}$	800	—	—	V	I_C = 0.2 A, R_{BE} = ∞, L = 100 mH
	$V_{CEX(sus)}$	800	—	—	V	I_C = 3 A, I_{B1} = 0.9 A, I_{B2} = –0.6 A, V_{BE} = –5.0 V, L = 180 µH, Clamped
Emitter to base breakdown voltage	$V_{(BR)EBO}$	7	—	—	V	I_E = 10 mA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	100	µA	V_{CB} = 750 V, I_E = 0
	I_{CEO}	—	—	100	µA	V_{CE} = 650 V, R_{BE} = ∞
DC current transfer ratio	h_{FE1}	15	—	—		V_{CE} = 5 V, I_C = 0.3 A*[1]
	h_{FE2}	7	—	—		V_{CE} = 5 V, I_C = 1.5 A*[1]
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.0	V	I_C = 0.75 A, I_B = 0.15 A*[1]
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	
Turn on time	t_{on}	—	—	1.0	µs	I_C = 1.5 A, I_{B1} = 0.3 A,
Storage time	t_{stg}	—	—	3.0	µs	I_{B2} = –0.75 A, V_{CC} ≅ 250 V
Fall time	t_f	—	—	1.0	µs	

Note: 1. Pulse test