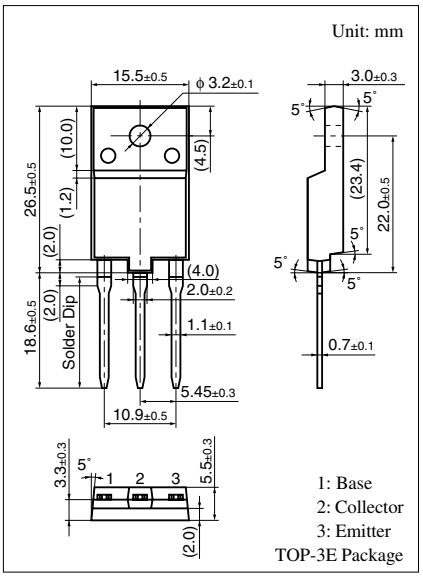
2SC5591

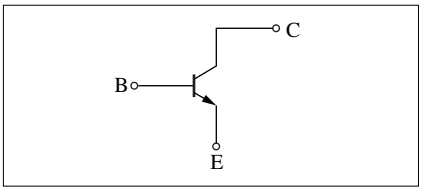
Silicon NPN triple diffusion mesa type

For horizontal deflection output



Marking Symbol: C5591

Internal Connection



■ Features

- High breakdown voltage: 1 700 V; supporting a large screen CRT and wider visible angle
- High-speed switching: t_f < 0.2 µs
- Low Collector to emitter saturation voltage: $V_{CE(sat)}$ < 3 V
- Wide area of safe operation (ASO)

■ Absolute Maximum Ratings T_C = 25°C

Parameter		Symbol	Rating	Unit
Collector to base voltage		V_{CBO}	1 700	V
Collector to emitter voltage		V_{CES}	1 700	V
		V_{CEO}	600	V
Emitter to base voltage		V_{EBO}	7	V
Peak collector current		I_{CP}	30	A
Collector current		I_C	20	A
Base current		I_B	11	A
Collector power dissipation	T_C = 25°C	P_C	70	W
	T_a = 25°C		3.5	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

■ Electrical Characteristics T_C = 25°C ± 3°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 1 000 V, I_E = 0			50	µA
		V_{CB} = 1 700 V, I_E = 0			1	mA
Emitter cutoff current	I_{EBO}	V_{EB} = 7 V, I_C = 0			50	µA
Forward current transfer ratio	h_{FE}	V_{CE} = 5 V, I_C = 10 A	6		12	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 10 A, I_B = 2.5 A			3	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C = 10 A, I_B = 2.5 A			1.5	V
Transition frequency	f_T	V_{CE} = 10 V, I_C = 0.1 A, f = 0.5 MHz		3		MHz
Storage time	t_{stg}	I_C = 10 A, Resistance loaded			3.0	µs
Fall time	t_f	I_{B1} = 2.5 A, I_{B2} = −5.0 A			0.2	µs