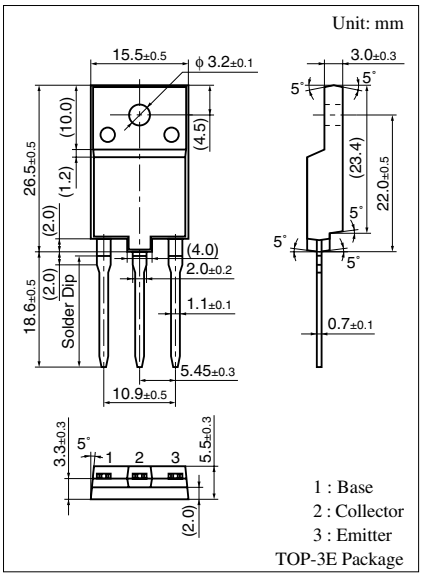
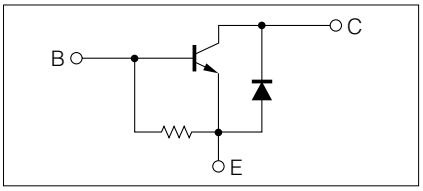
2SC5519

Silicon NPN triple diffusion mesa type

For horizontal deflection output



Internal Connection



■ Features

- High breakdown voltage, and high reliability through the use of a glass passivation layer
- High-speed switching
- Wide area of safe operation (ASO)

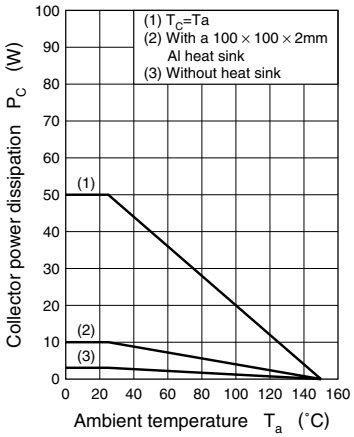
■ Absolute Maximum Ratings $T_C = 25°C$

Parameter		Symbol	Rating	Unit
Collector to base voltage		V_{CBO}	1 700	V
Collector to emitter voltage		V_{CES}	1 700	V
Emitter to base voltage		V_{EBO}	7	V
Peak collector current		I_{CP}	16	A
Collector current		I_C	8	A
Base current		I_B	3	A
Collector power dissipation	$T_C = 25°C$	P_C	50	W
	$T_a = 25°C$		3	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_C = 25°C$

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 to base voltage	V_{EBO}	I_E = 500 mA, I_C = 0	7			V
Forward current transfer ratio	h_{FE}	V_{CE} = 5 V, I_C = 6 A	5		9	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 6 A, I_B = 1.2 A			5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C = 6 A, I_B = 1.2 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 = 6 A, I_{B1} = 1.2 A, I_{B2} = −2.4 A			5.0	μs
Fall time	t_f				0.5	μs
Diode forward voltage	V_F	I_F = 6 A			−2	V

P_C — T_a



Area of safe operation, horizontal operation ASO