

# 2SC5519

## Silicon NPN triple diffusion mesa type

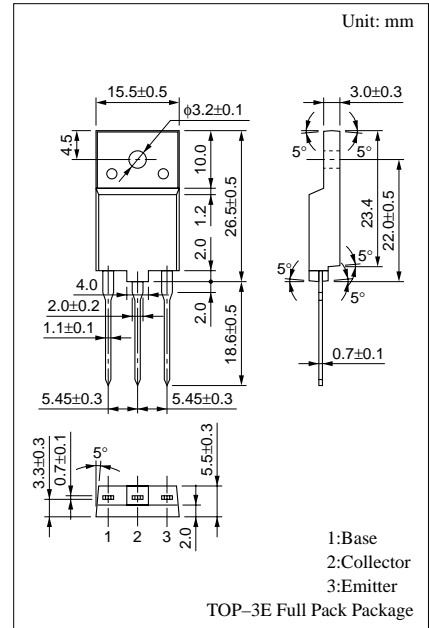
For horizontal deflection output

### 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 ( $T_C=25^\circ\text{C}$ )

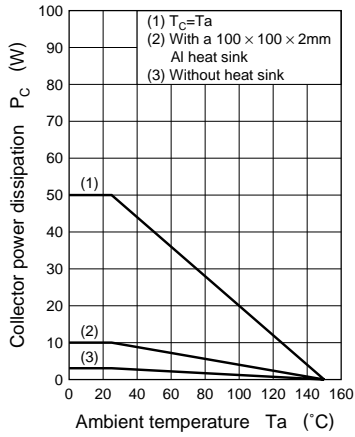
Parameter	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	1700	V
Collector to emitter voltage	$V_{CES}$	1700	V
Emitter to base voltage	$V_{EBO}$	5	V
Peak collector current	$I_{CP}$	16	A
Collector current	$I_C$	8	A
Base current	$I_B$	3	A
Collector power dissipation	$P_C$	50	W
		3	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



### Electrical Characteristics ( $T_C=25^\circ\text{C}$ )

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 1000\text{V}, I_E = 0$			50	$\mu\text{A}$
		$V_{CB} = 1700\text{V}, I_E = 0$			1	mA
Emitter to base voltage	$V_{EBO}$	$I_E = 500\text{mA}, I_C = 0$	5			V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 6\text{A}$	5		10	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 6\text{A}, I_B = 1.2\text{A}$			3	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 6\text{A}, I_B = 1.2\text{A}$			1.5	V
Transition frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 0.1\text{A}, f = 0.5\text{MHz}$		3		MHz
Storage time	$t_{stg}$	$I_C = 6\text{A}, I_{B1} = 1.2\text{A}, I_{B2} = -2.4\text{A}$			5.0	$\mu\text{s}$
Fall time	$t_f$				0.5	$\mu\text{s}$
Diode forward voltage	$V_F$	$I_F = 6\text{A}$			-2	V

$P_C$  —  $T_a$



Area of safe operation, horizontal operation ASO

