

2SC5270, 2SC5270A

Silicon NPN triple diffusion mesa type

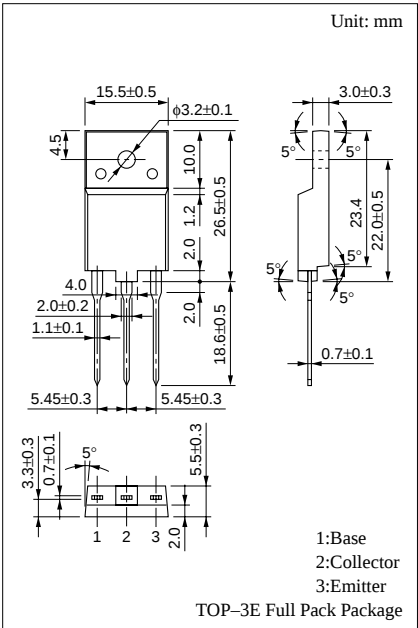
For horizontal deflection output

■ Features

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

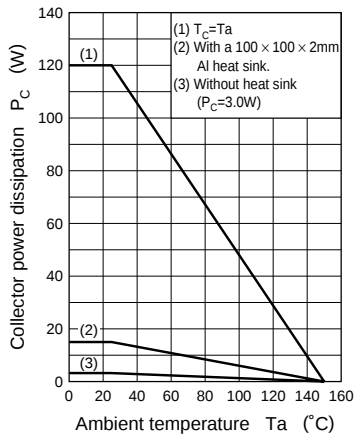
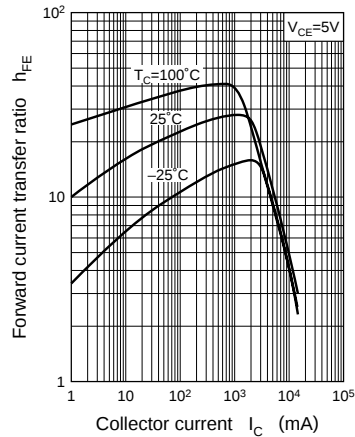
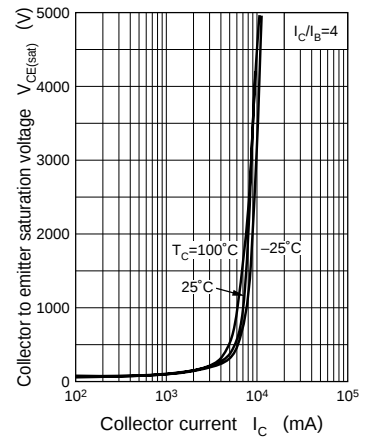
■ Absolute Maximum Ratings (T_C=25°C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage	2SC5270	V _{CBO}	1500	V
	2SC5270A		1600	
Collector to base voltage	2SC5270	V _{CES}	1500	V
	2SC5270A		1600	
Collector to emitter voltage		V _{CEO}	600	V
Emitter to base voltage		V _{EBO}	5	V
Peak collector current		I _{CP}	20	A
Collector current		I _C	12	A
Base current		I _B	8	A
Collector power dissipation	T _C =25°C	P _C	120	W
	T _a =25°C		3	
Junction temperature		T _j	150	°C
Storage temperature		T _{stg}	-55 to +150	°C

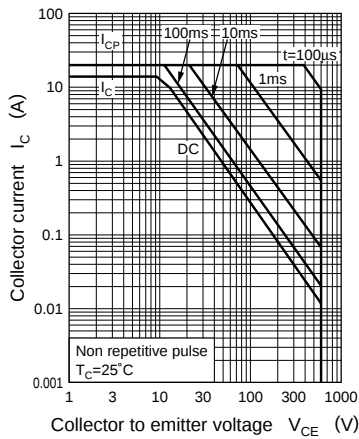


■ Electrical Characteristics (T_C=25°C)

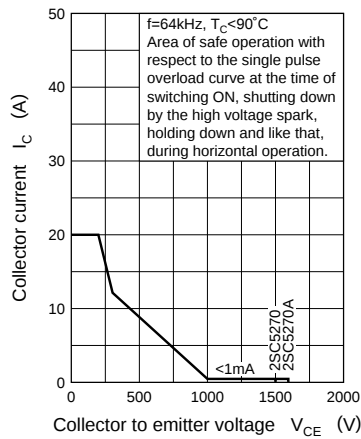
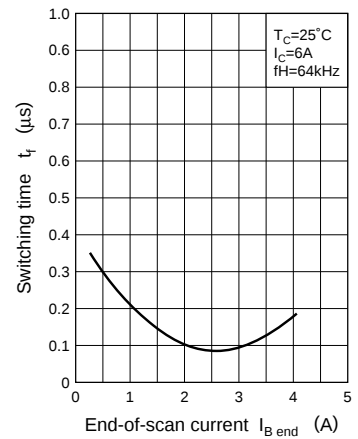
Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	2SC5270	I _{CBO}	V _{CB} = 1000V, I _E = 0			50	μA
	2SC5270A					50	
	2SC5270		V _{CB} = 1500V, I _E = 0			1	mA
	2SC5270A		V _{CB} = 1600V, I _E = 0			1	
Emitter cutoff current		I _{EBO}	V _{EB} = 5V, I _C = 0			50	μA
Forward current transfer ratio		h _{FE}	V _{CE} = 5V, I _C = 6A	5		12	
Collector to emitter saturation voltage		V _{CE(sat)}	I _C = 6A, I _B = 1.5A			3	V
Base to emitter saturation voltage		V _{BE(sat)}	I _C = 6A, I _B = 1.5A			1.5	V
Transition frequency		f _T	V _{CE} = 10V, I _C = 0.1A, f = 0.5MHz		3		MHz
Storage time		t _{stg}	I _C = 6A, I _{B1} = 1.5A, I _{B2} = -3A		1.5	2.5	μs
Fall time		t _f			0.12	0.2	μs

$P_C - T_a$  $h_{FE} - I_C$  $V_{CE(sat)} - I_C$ 

Area of safe operation (ASO)



Area of safe operation, horizontal operation ASO

 $t_f - I_B$  $t_{stg} - I_B$ 