

2SC5440

Silicon NPN triple diffusion mesa type

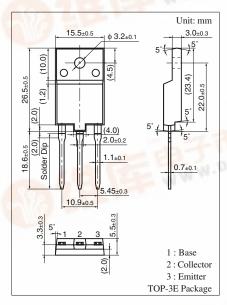
For horizontal deflection output

■ Features

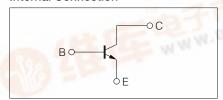
- High breakdown voltage, and high reliability through the use of a glass passivation layer
- High-speed switching
- Wide area of safe operation (ASO)

■ Absolute Maximum Ratings $T_C = 25$ °C

Parameter		Symbol	Rating	Unit	
Collector to base voltage		V_{CBO}	1 500	V	
Collector to emitter voltage		V _{CES}	1 500	V	
_ Lts \1		V _{CEO}	600	V	
Emitter to base voltage		$V_{\rm EBO}$	7	V	
Peak collector current		I_{CP}	25	A	
Collector current		I_C	15	A	
Base current		I_B	7.5	A	
Collector power	$T_C = 25^{\circ}C$	P_{C}	60	W	
dissipation	$T_a = 25^{\circ}C$		3.0		
Junction temperature		T _j	150	°C	
Storage temperature		T_{stg}	-55 to +150	°C	



Internal Connection

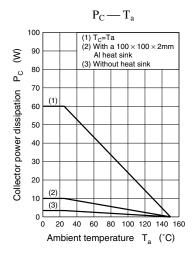


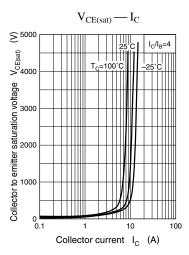
■ Electrical Characteristics T_C = 25°C

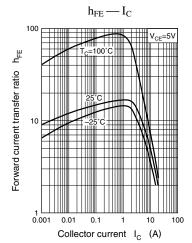
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 1\ 000\ V, I_E = 0$			50	μΑ
		$V_{CB} = 1 500 \text{ V}, I_{E} = 0$			1	mA
Emitter cutoff current	I_{EBO}	$V_{EB} = 7 \text{ V}, I_{C} = 0$			50	μΑ
Forward current transfer ratio	h_{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 7.5 \text{ A}$	5		9	12-7
Collector to emitter saturation voltage	V _{CE(sat)}	$I_C = 7.5 \text{ A}, I_B = 1.88 \text{ A}$			3	V
Base to emitter saturation voltage	V _{BE(sat)}	$I_C = 7.5 \text{ A}, I_B = 1.88 \text{ A}$			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}	$I_C = 7.5 \text{ A}, I_{B1} = 1.88 \text{ A}, I_{B2} = -3.76 \text{ A}$			2.7	μs
Fall time	t_{f}				0.2	μs



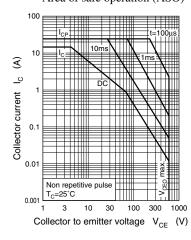
2SC5440 Power Transistors



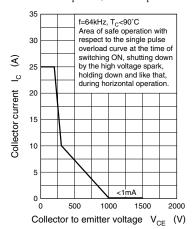




Area of safe operation (ASO)



Area of safe operation, horizontal operation ASO



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