

Silicon NPN Triple Diffused Mesa Type

2SC5355

■ Features

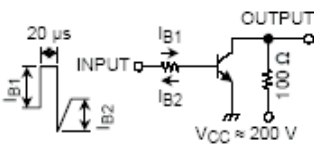
- Excellent switching times: $t_r = 0.5 \mu\text{s}$ (max), $t_f = 0.3 \mu\text{s}$ (max)
- High collector breakdown voltage: $V_{CE0} = 400 \text{ V}$
- High DC current gain: $h_{FE} = 20$ (min)

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	600	V
Collector-emitter voltage	V_{CEO}	400	V
Emitter-base voltage	V_{EBO}	7	V
Collector current (DC)	I_C	5	A
Collector current (Pulse)	I_{CP}	7	
Base current	I_B	1	A
Collector power dissipation	P_C	$T_a = 25^\circ\text{C}$	1.5
		$T_C = 25^\circ\text{C}$	25
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$

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■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 480\text{ V}, I_E = 0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 7\text{ V}, I_C = 0$			10	μA
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 1\text{ mA}, I_E = 0$	600			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	400			V
DC current gain	h_{FE}	$V_{CE} = 5\text{ V}, I_C = 1\text{ mA}$	12			
		$V_{CE} = 5\text{ V}, I_C = 0.5\text{ A}$	20		65	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2\text{ A}, I_B = 0.25\text{ A}$			1.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2\text{ A}, I_B = 0.25\text{ A}$			1.3	V
Switching time Rise time	t_r	 <p>$I_{B1} = 0.25\text{ A}, I_{B2} = -0.5\text{ A}$ DUTY CYCLE $\leq 1\%$</p>			0.5	μs
Switching time Storage time	t_{stg}				2.0	
Switching time Fall time	t_f				0.3	

■ Marking

Marking	C5355
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