

2SD2556

Silicon NPN epitaxial planer type

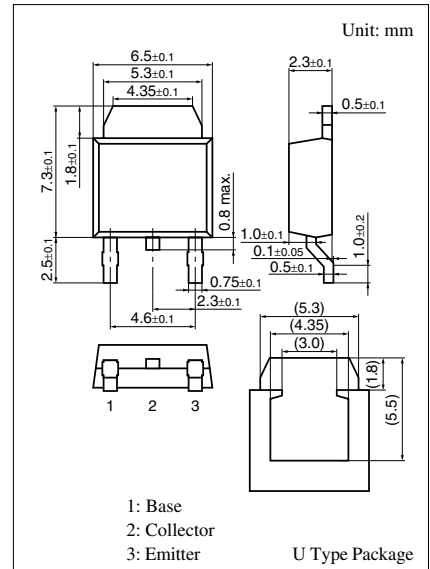
For power switching

■ Features

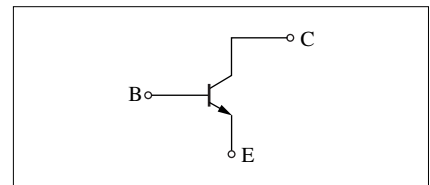
- High forward current transfer ratio h_{FE}
- Allowing supply with the radial taping
- Low collector to emitter saturation voltage $V_{CE(sat)}: < 0.5 \text{ V}$

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

Parameter	Symbol	Rating	Unit	
Collector to base voltage	V_{CBO}	130	V	
Collector to emitter voltage	V_{CEO}	80	V	
Emitter to base voltage	V_{EBO}	7	V	
Peak collector current	I_{CP}	10	A	
Collector current	I_C	5	A	
Collector power dissipation	P_C	$T_C = 25^\circ\text{C}$	10	W
		$T_a = 25^\circ\text{C}$	1	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	



Internal Connection



■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 100 \text{ V}, I_E = 0$			10	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5 \text{ V}, I_C = 0$			50	μA
Collector to emitter voltage	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	80			V
Forward current transfer ratio	h_{FE1}	$V_{CE} = 2 \text{ V}, I_C = 0.1 \text{ A}$	45			
	h_{FE2}^*	$V_{CE} = 2 \text{ V}, I_C = 2 \text{ A}$	90		260	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4 \text{ A}, I_B = 0.2 \text{ A}$			0.5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 4 \text{ A}, I_B = 0.2 \text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_C = -0.5 \text{ A}, f = 10 \text{ MHz}$		30		MHz
Turn-on time	t_{on}	$I_C = 2 \text{ A}, I_{B1} = 0.2 \text{ A}, I_{B2} = -0.2 \text{ A}$ $V_{CC} = 50 \text{ V}$		0.5		μs
Storage time	t_{stg}			1.5		μs
Fall time	t_f			0.15		μs

Note) *: Rank classification

Rank	P	Q
h_{FE2}	130 to 260	90 to 180