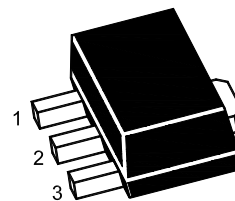


2SC5824U

NPN Silicon Epitaxial Planar Transistor

high speed switching



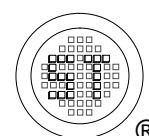
1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	60	V
Collector Emitter Voltage	V_{CEO}	60	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_{C}	3	A
Peak Pulse Collector Current (100 ms)	I_{CP}	6	A
Power Dissipation	P_{tot}	$0.5^{1)}$ $2^{2)}$	W
Junction Temperature	T_{j}	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^{\circ}\text{C}$

¹⁾ Each terminal mounted on a recommended land.

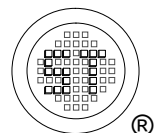
²⁾ Mounted on a 40 x 40 x 0.7 (mm) ceramic substrate.

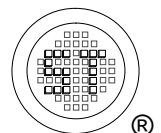
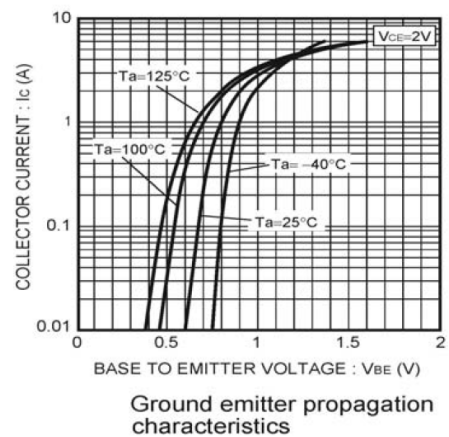
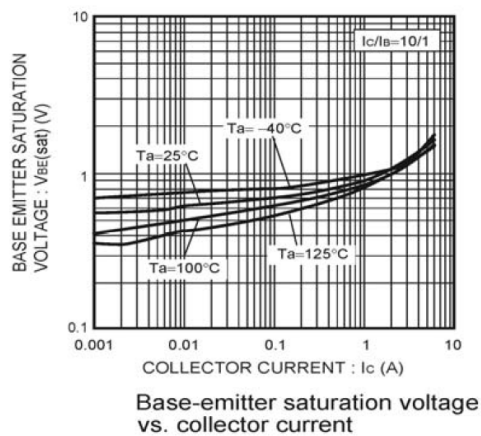
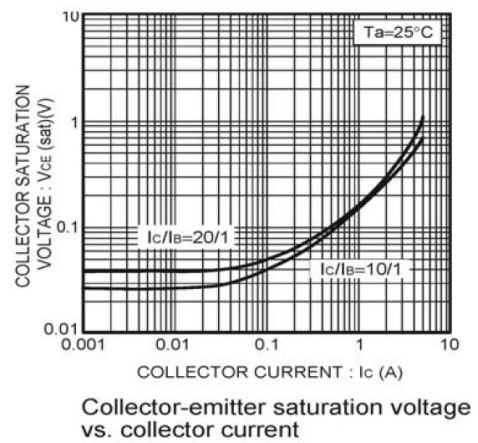
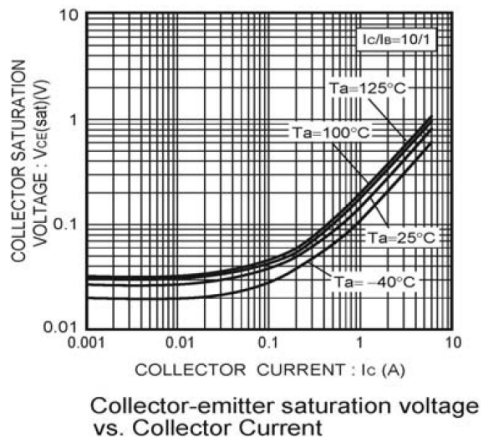
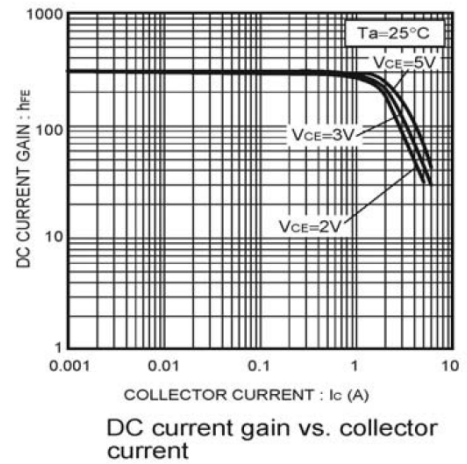
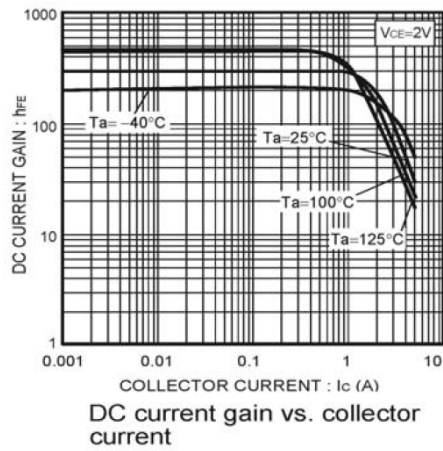


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Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 2\text{ V}$, $I_C = 100\text{ mA}$	Q R h_{FE} h_{FE}	120	-	270	-
Current Gain Group		180	-	390	-
Collector Base Cutoff Current at $V_{CB} = 40\text{ V}$	I_{CBO}	-	-	1	μA
Emitter Base Cutoff Current at $V_{EB} = 4\text{ V}$	I_{EBO}	-	-	1	μA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	60	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	60	-	-	V
Emitter Base Breakdown Voltage at $I_E = 100\text{ }\mu\text{A}$	$V_{(BR)EBO}$	6	-	-	V
Collector Emitter Saturation Voltage at $I_C = 2\text{ A}$, $I_B = 200\text{ mA}$	$V_{CE(sat)}$	-	-	0.5	V
Transition Frequency at $V_{CE} = 10\text{ V}$, $I_E = -100\text{ mA}$	f_T	-	200	-	MHz
Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	20	-	pF
Turn-on Time at $V_{CC} = 25\text{ V}$, $I_C = 3\text{ A}$, $I_{B1} = 300\text{ mA}$, $I_{B2} = -300\text{ mA}$	t_{on}	-	50	-	ns
Storage Time at $V_{CC} = 25\text{ V}$, $I_C = 3\text{ A}$, $I_{B1} = 300\text{ mA}$, $I_{B2} = -300\text{ mA}$	t_s	-	150	-	ns
Fall Time at $V_{CC} = 25\text{ V}$, $I_C = 3\text{ A}$, $I_{B1} = 300\text{ mA}$, $I_{B2} = -300\text{ mA}$	t_f	-	30	-	ns

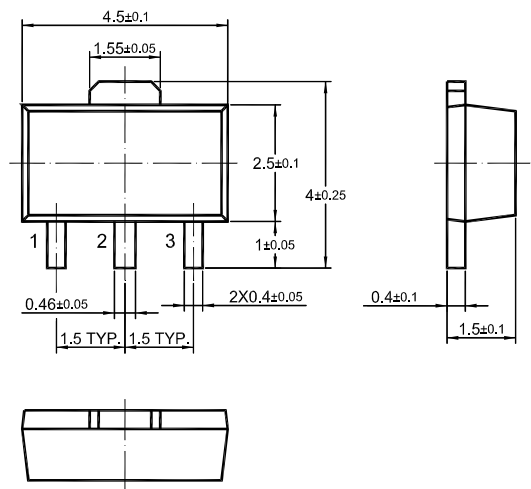




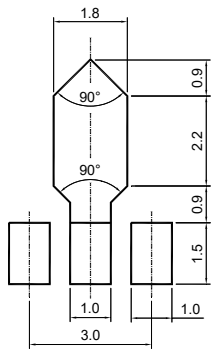
2SC5824U

Package Outline (Dimensions in mm)

SOT-89



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-89	12	8 ± 0.1	0.315 ± 0.004	178	7	1,000
				330	13	4,000

Marking information

" 2SC5824*U " = Part No. (" ** " = HFE grouping Code)

"YM" = Date Code Marking

"Y" = Year

"M" = Month

Font type: Arial

