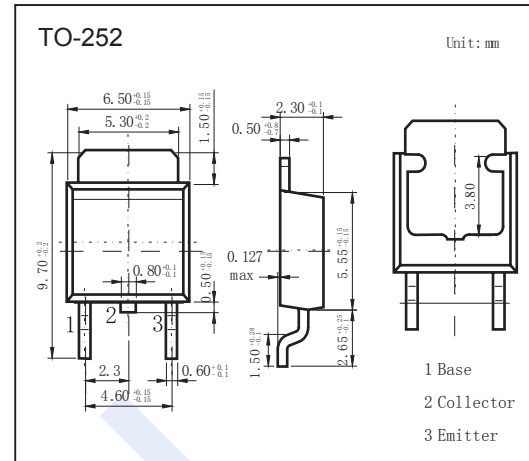


PNP Transistors

2SB1643

■ Features

- High collector to emitter V_{CE0}
- High collector power dissipation P_c



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

Parameter	Symbol	Rating	Unit	
Collector - Base Voltage	V_{CB0}	-60	V	
Collector - Emitter Voltage	V_{CE0}	-60		
Emitter - Base Voltage	V_{EB0}	-6		
Collector current	I_c	-3	A	
Collector Current - Pulse	I_{CP}	-6		
Base current	I_B	-1		
Collector Power Dissipation	P_c	$T_c = 25^\circ\text{C}$	40	W
		$T_a = 25^\circ\text{C}$	1.3	
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature range	T_{stg}	-55 to 150		

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = -100 \mu\text{A}, I_E = 0$	-60			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = -1 \text{ mA}, I_B = 0$	-60			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100 \mu\text{A}, I_c = 0$	-6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -60\text{V}, I_E = 0$			-0.1	μA
Collector-emitter cut-off current	I_{CEO}	$V_{CE} = -40\text{V}, I_B = 0$			-10	
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{V}, I_c = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -2 \text{ A}, I_B = -50 \text{ mA}$			-1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = -2 \text{ A}, I_B = -50 \text{ mA}$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -4\text{V}, I_c = -500 \text{ mA}$	300		700	
Transition frequency	f_T	$V_{CE} = -12\text{V}, I_c = -200 \text{ mA}, f = 10\text{MHz}$		30		MHz

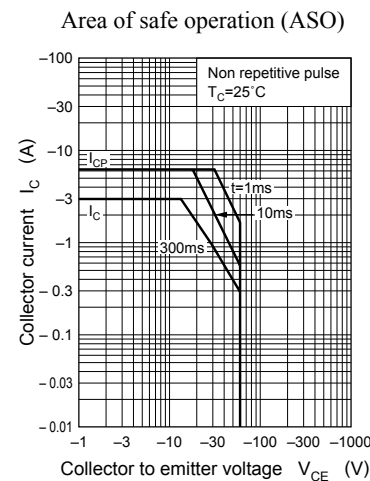
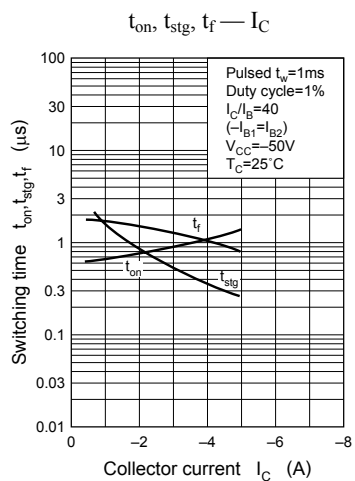
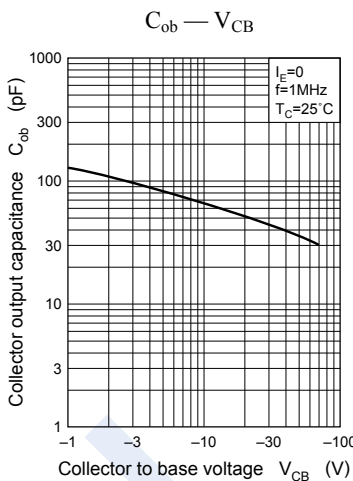
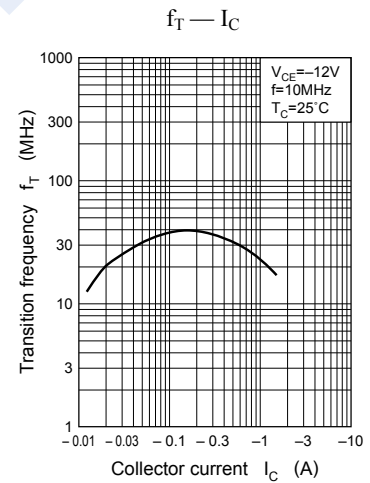
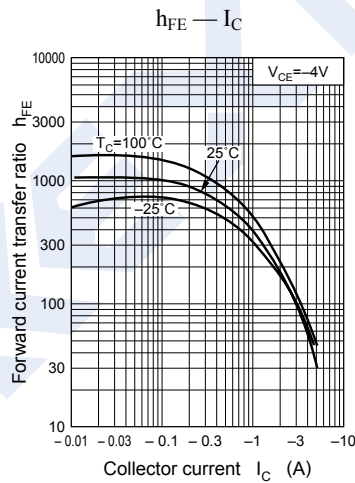
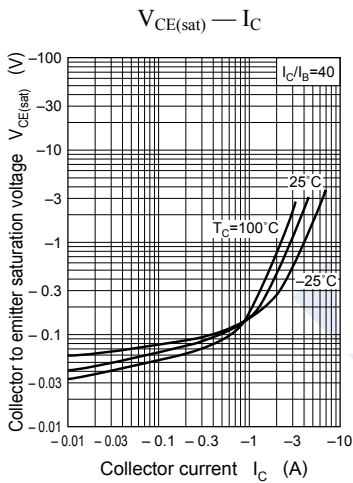
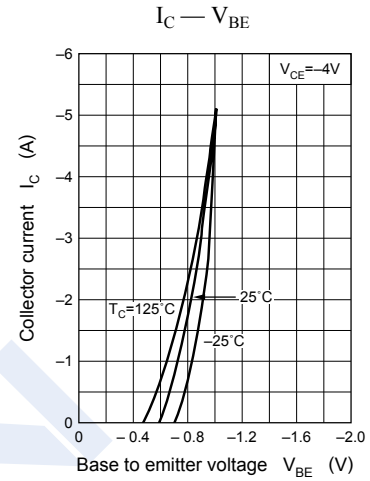
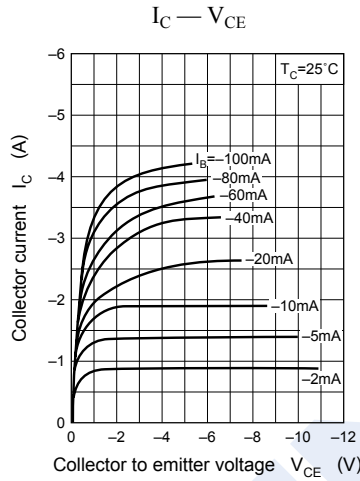
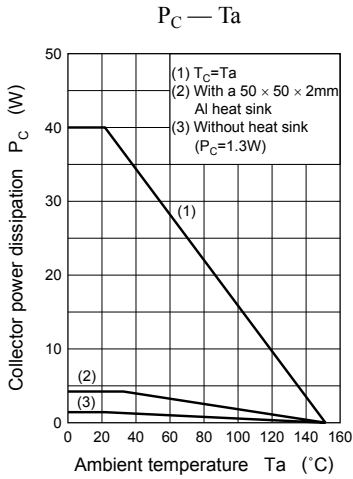
■ Classification of h_{FE}

Type	2SB1643-Q	2SB1643-P
Range	300-500	400-700

PNP Transistors

2SB1643

■ Typical Characteristics



PNP Transistors

2SB1643

■ Typical Characteristics

