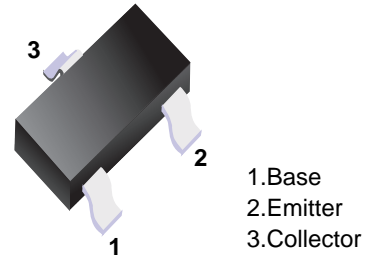


■ NPN Transistors



■ Simplified outline(SOT-323)

■ Features

- Collector Current: $I_c=0.5A$

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	25	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current -Continuous	I_c	0.5	A
Collector Dissipation	P_c	0.3	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to 150	$^\circ C$

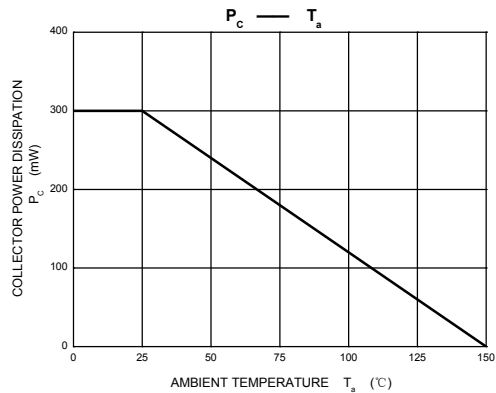
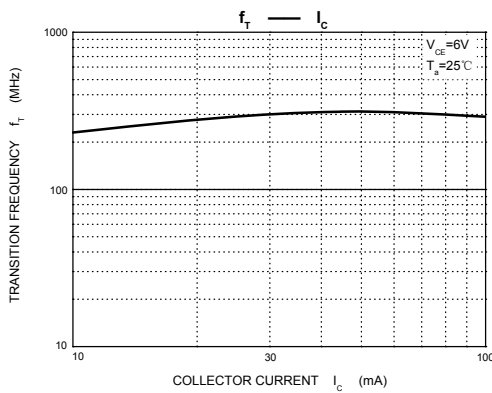
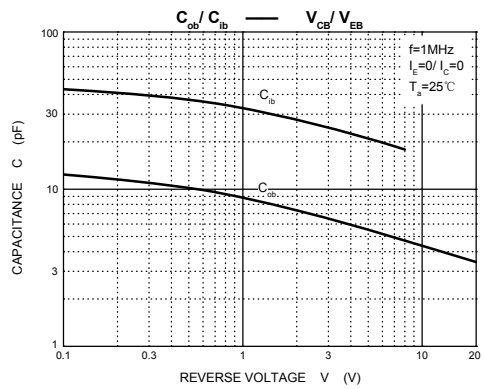
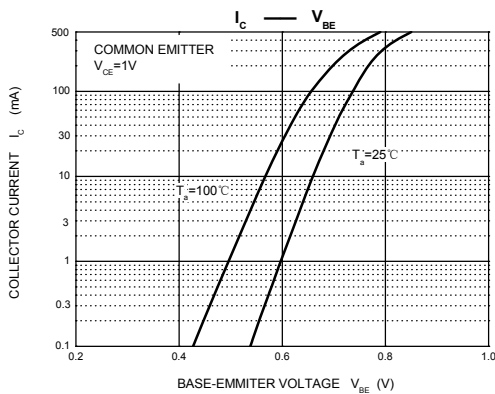
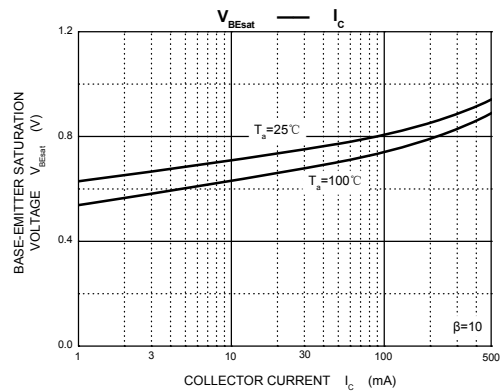
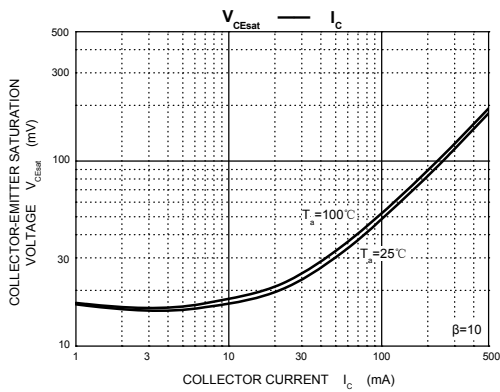
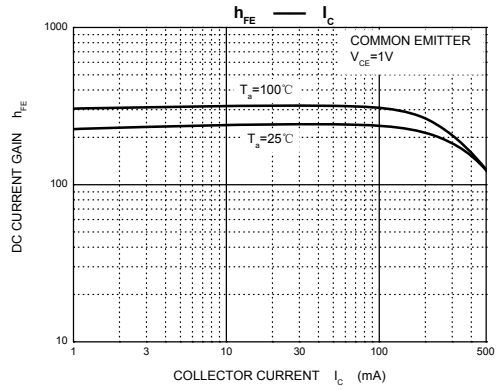
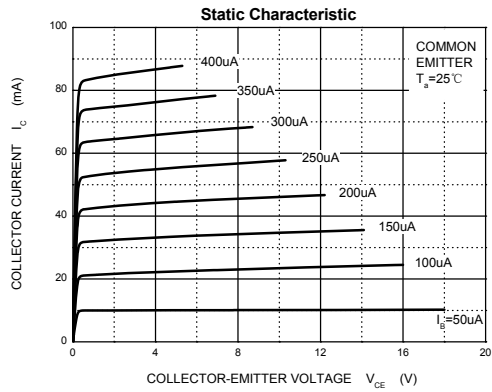
■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_c = 100 \mu A, I_E = 0$	40			V
Collector-emitter breakdown voltage	V_{CE0}	$I_c = 1mA, I_B = 0$	25			V
Emitter-base Breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_c = 0$	5			V
Collector-base cut-off current	I_{CB0}	$V_{CB} = 40 V, I_E = 0$			0.1	μA
Collector-emitter cut-off current	I_{CE0}	$V_{CE} = 20 V, I_B = 0$			1	μA
Emitter-base cut-off current	I_{EB0}	$V_{EB} = 5 V, I_c = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 1 V, I_c = 50 mA$	120		400	
		$V_{CE} = 1 V, I_c = 500 mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500 mA, I_B = 50 mA$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500 mA, I_B = 50 mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 6 V, I_c = 20 mA, f = 30 MHz$	150			MHz

■ Classification of $h_{FE}(1)$

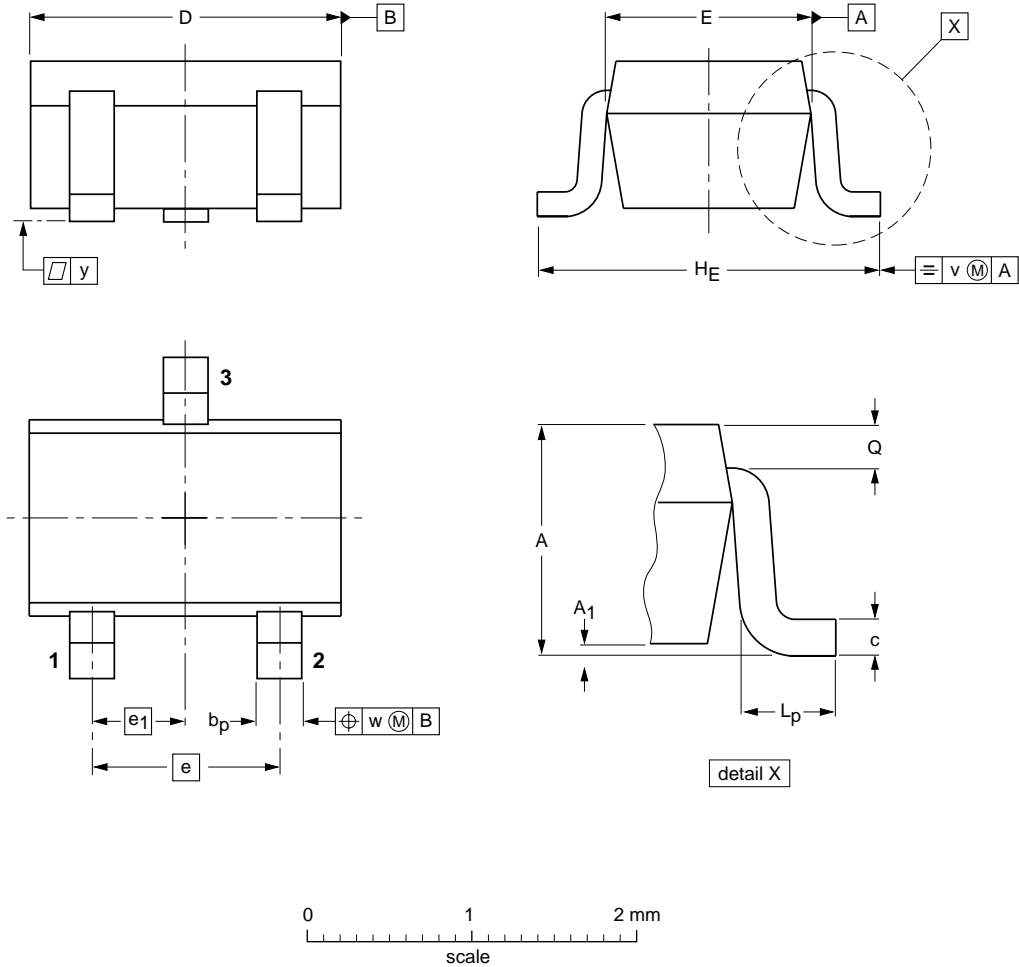
Type	S8050W
Range	200-350
Marking	J3Y

■ Typical Characteristics



Package Outline

SOT-323



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.8	0.1	0.4 0.3	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.23 0.13	0.2	0.2

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-323	Tape/Reel, 7" reel	3000	EIA-481-1