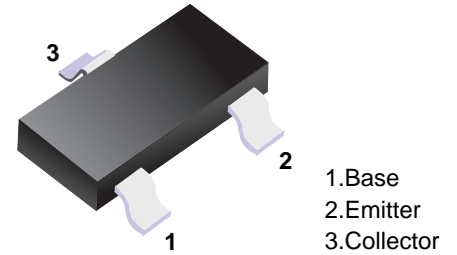


■ PNP Transistors

■ Features

- Collector-Base Voltage: $V_{CB0}=-60V$



■ Simplified outline(SOT-23)

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CB0}	-60	V
Collector to emitter voltage	V_{CEO}	-50	V
Emitter to base voltage	V_{EBO}	-5.0	V
Collector Current (DC)	I_c	-150	mA
Power dissipation	P_c	200	mW
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	-55 to +150	$^{\circ}C$

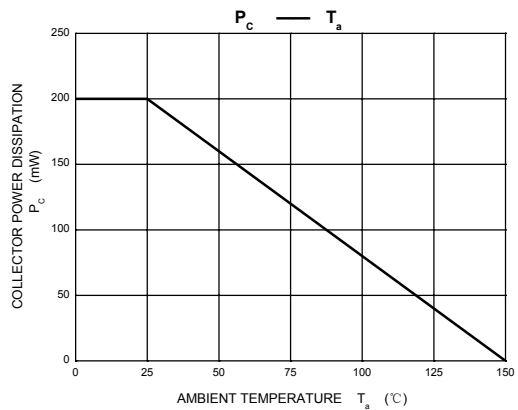
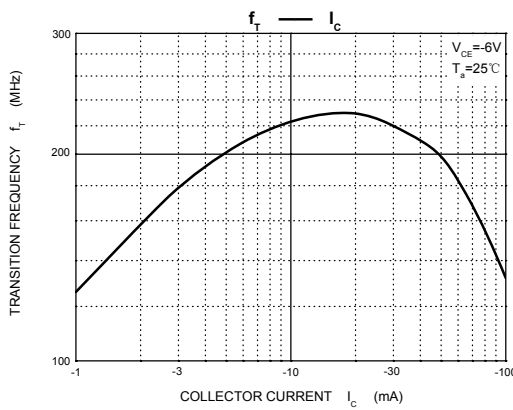
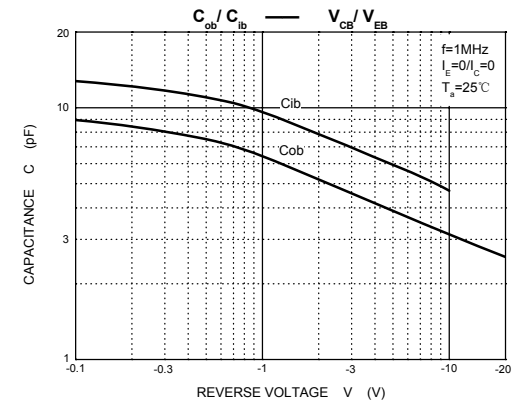
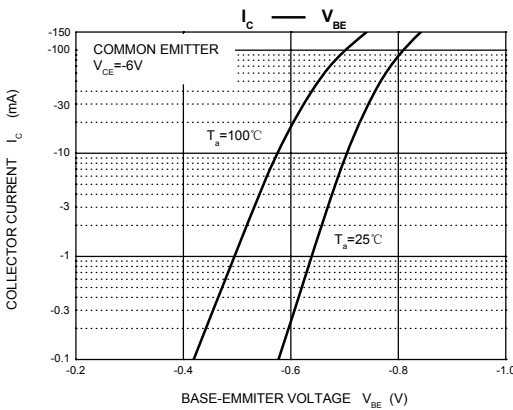
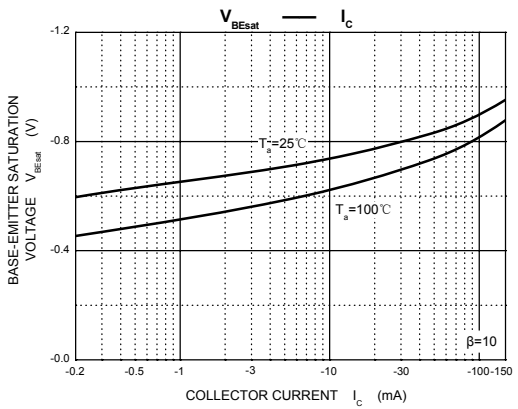
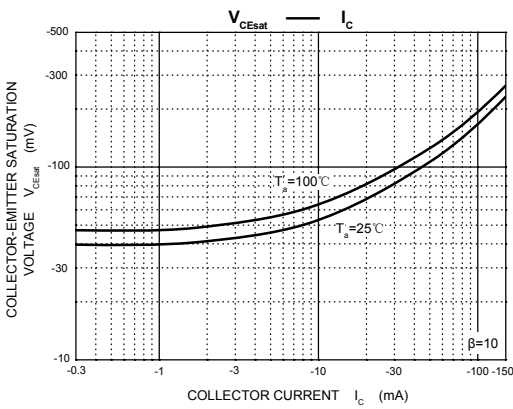
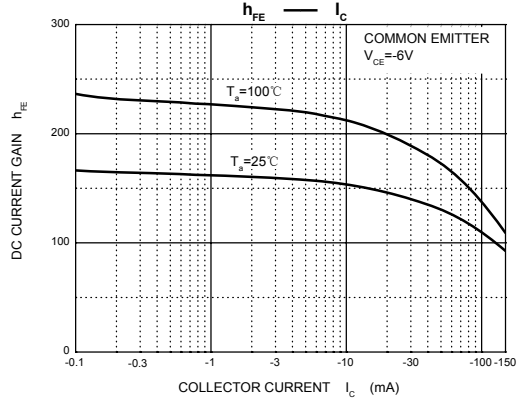
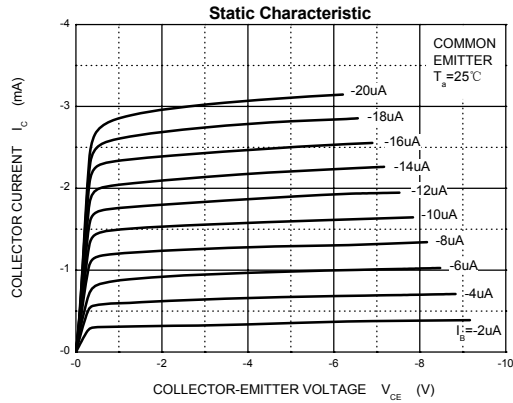
■ Electrical Characteristics $T_a = 25^{\circ}C$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_c = -50\mu A, I_E = 0$	-60			V
Collector-emitter breakdown voltage	V_{CEO}	$I_c = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -50\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	120		475	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.18	-0.3	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE} = -6V, I_C = -1.0mA$	-0.58	-0.62	-0.68	V
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4.5	7	pF
Noise figure	NF	$V_{CE} = -6V, I_C = -0.3mA, R_g = 10k\Omega, f = 100Hz$		6	20	dB
Transition frequency	f_T	$V_{CE} = -6V, I_C = -10mA$	50			MHz

■ Marking

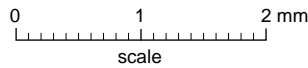
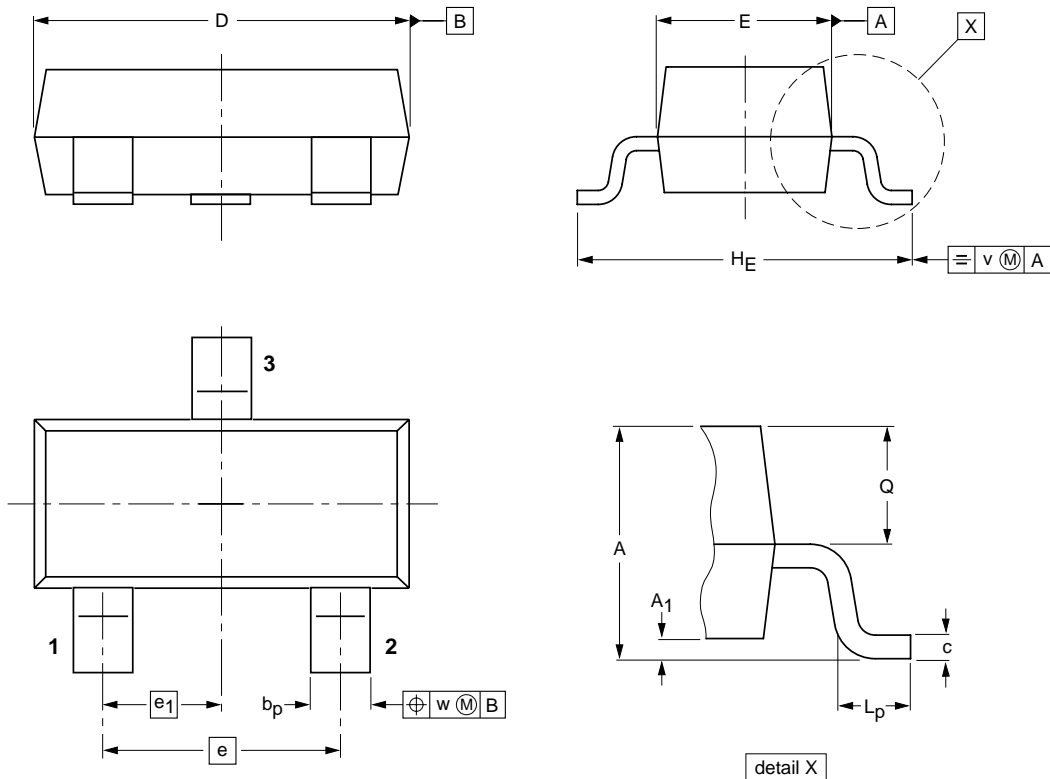
Marking	CS		
Range	200-400	120-220	220-475

■ Typical Characteristics



Package Outline

SOT-23



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 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1