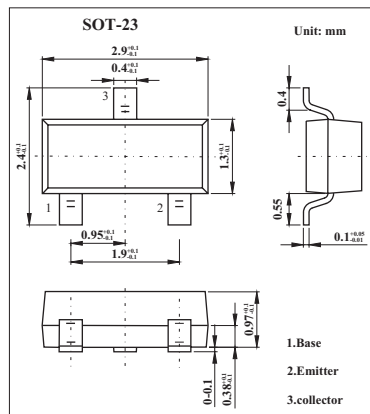


■ Features

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



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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-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	$^{\circ}C$

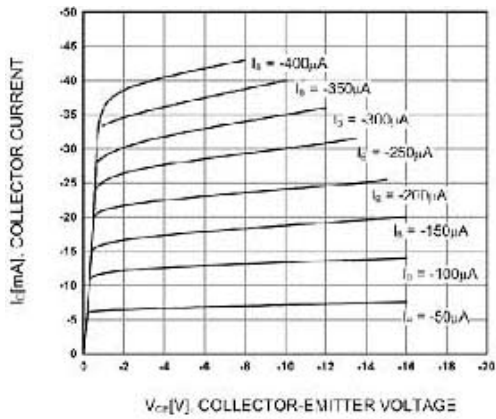
■ Electrical Characteristics  $T_a = 25^{\circ}C$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C = -5\mu A, I_E = 0$	-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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-0.1	$\mu A$
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

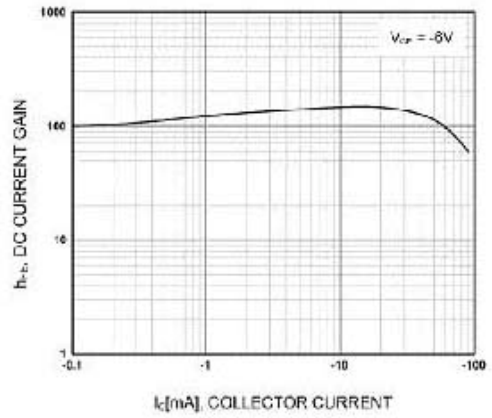
■ Marking

Marking	M6	CSL	CSH
Range	200-400	120-220	220-475

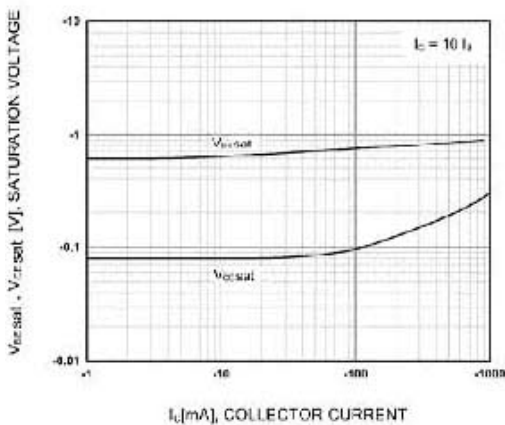
■ Typical Characteristics



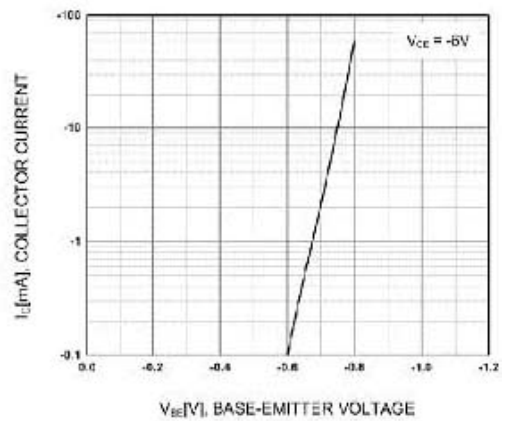
Static Characteristic



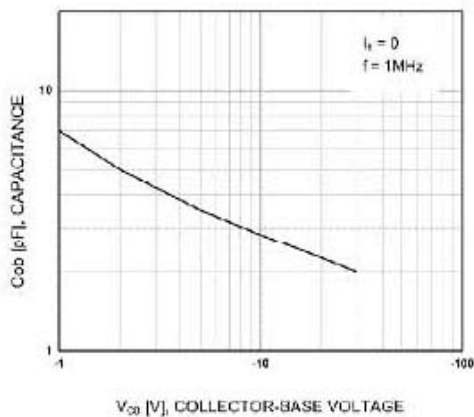
DC current Gain



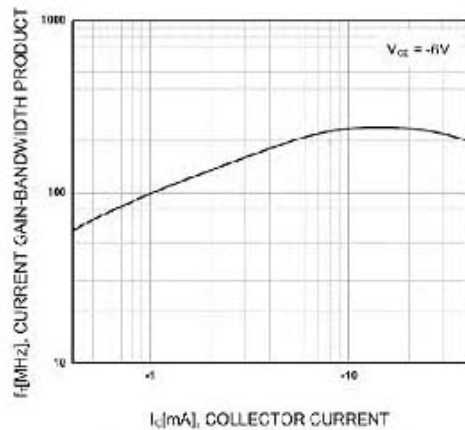
Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage



Base-Emitter On Voltage



Collector Output Capacitance



Current Gain Bandwidth Product