

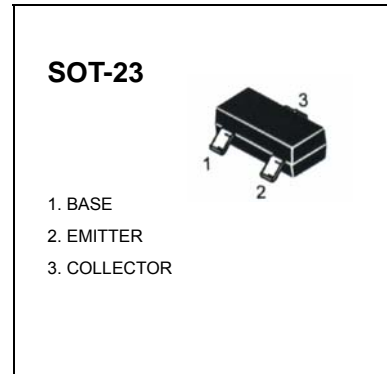
# TRANSISTOR(NPN)

## FEATURES

Driver transistor

MARKING :1H

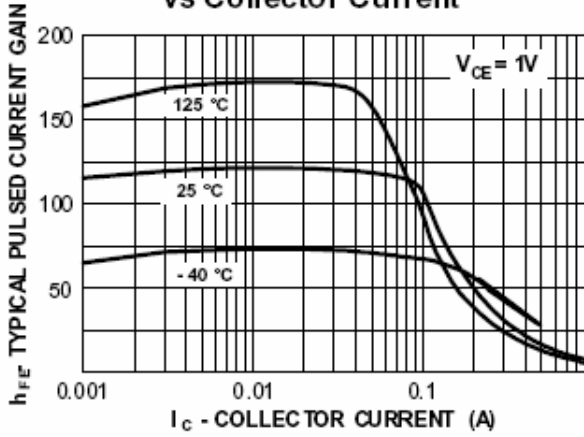
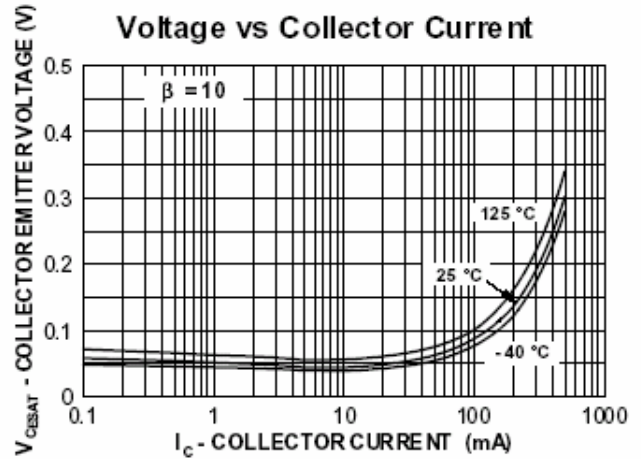
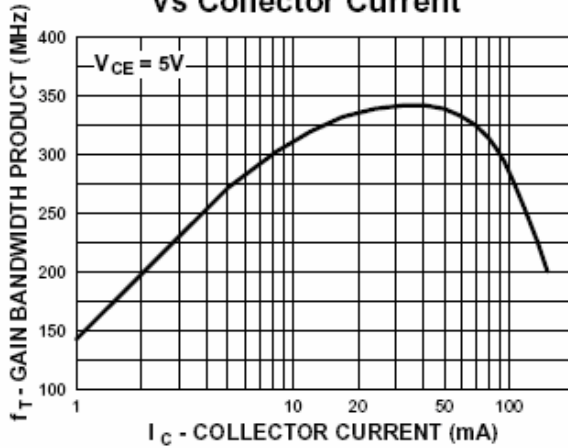
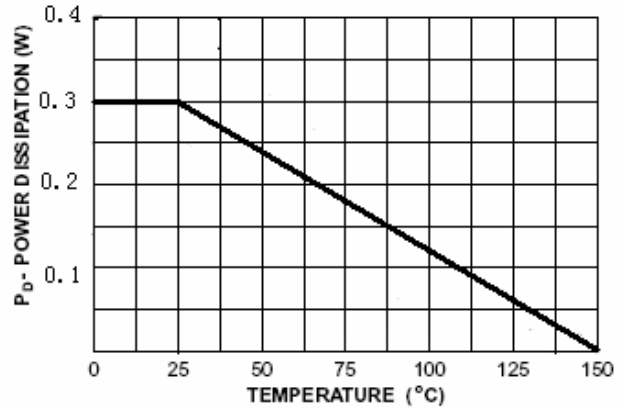
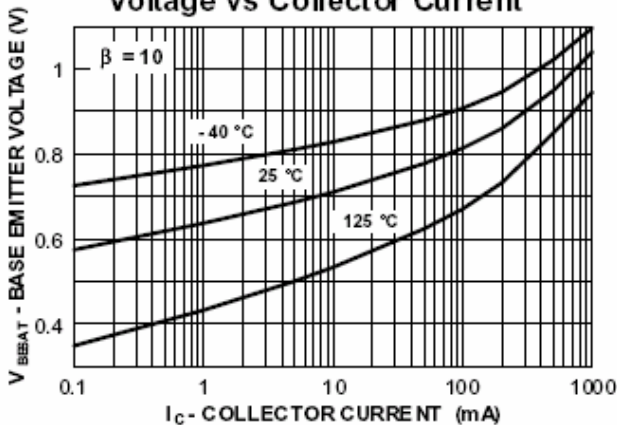
MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)



Symbol	Parameter	Value	Units
$V_{CB0}$	Collector-Base Voltage	60	V
$V_{CE0}$	Collector-Emitter Voltage	60	V
$V_{EB0}$	Emitter-Base Voltage	4	V
$I_C$	Collector Current -Continuous	0.5	A
$P_C$	Collector Power Dissipation	300	mW
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55-150	$^{\circ}\text{C}$

## ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	4			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60\text{V}, I_E=0$			0.1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE}=60\text{V}, I_B=0$			0.1	$\mu\text{A}$
Collector cut-off current	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE1}$	$V_{CE}=1\text{V}, I_C=10\text{mA}$	100		400	
	$h_{FE2}$	$V_{CE}=1\text{V}, I_C=100\text{mA}$	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$			0.25	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=1\text{V}, I_C=100\text{mA}$			1.2	V
Transition frequency	$f_T$	$V_{CE}=2\text{V}, I_C=10\text{mA}$ $f=100\text{MHz}$	100			MHz

**Typical Pulsed Current Gain vs Collector Current**

**Collector-Emitter Saturation Voltage vs Collector Current**

**Gain Bandwidth Product vs Collector Current**

**Power Dissipation vs Ambient Temperature**

**Base-Emitter Saturation Voltage vs Collector Current**

**Base Emitter ON Voltage vs Collector Current**
