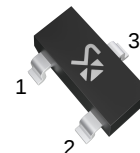


NPN Silicon Epitaxial Planar Transistor

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MARKING:1P

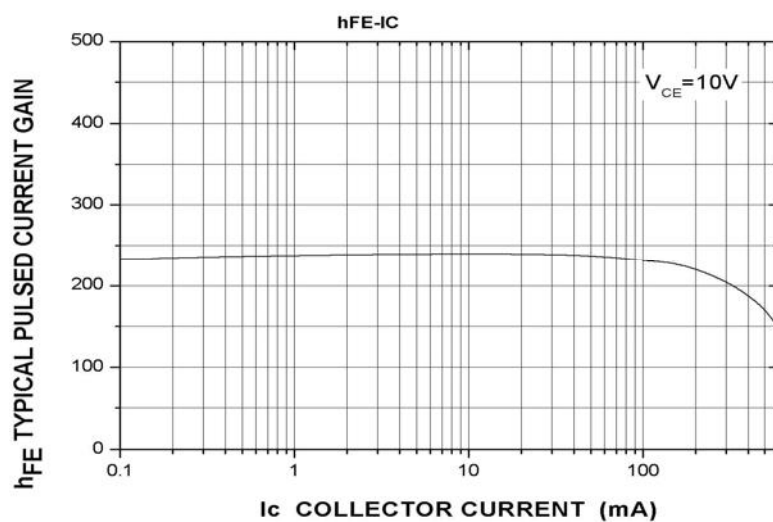
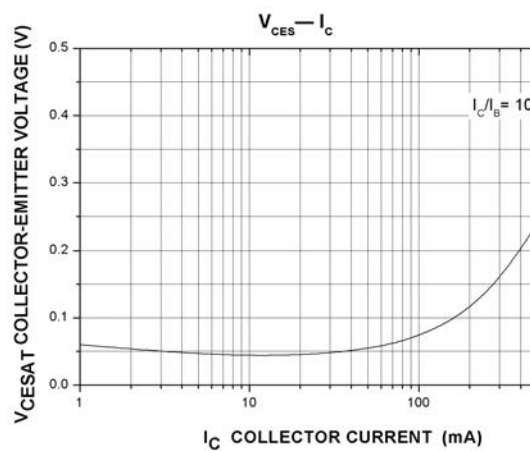
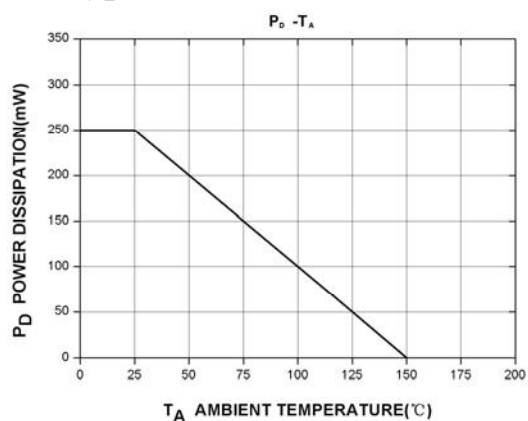
MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	75	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	600	mA
P_C	Collector Power Dissipation	250	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-+150	$^{\circ}\text{C}$
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient Air	500	$^{\circ}\text{C/W}$

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	75			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			0.01	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=1\text{V}, I_C=0.1\text{mA}$ $V_{CE}=1\text{V}, I_C=150\text{mA}$ $V_{CE}=1\text{V}, I_C=500\text{mA}$	35 100 40		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150\text{mA}, I_B=15\text{mA}$ $I_C=500\text{mA}, I_B=50\text{mA}$			0.3 1	V
Collector-emitter saturation voltage	$V_{BE(sat)}$	$I_C=150\text{mA}, I_B=15\text{mA}$ $I_C=500\text{mA}, I_B=50\text{mA}$			1.2 2	V
Transition frequency	f_T	$V_{CE}=20\text{V}, I_C=20\text{mA}$ $f=100\text{MHz}$	300			MHz

Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

