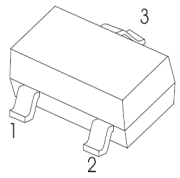
TRANSISTOR (NPN)

SOT－23



1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

- High Transition Frequency
- Low Saturation Voltage

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	200	mA
P_C	Collector Power Dissipation	150	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	833	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	15			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=40V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=1V, I_C=10mA	40		240	
	$h_{FE(2)}$	V_{CE}=1V, I_C=100mA	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=20mA, I_B=1mA			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=20mA, I_B=1mA			1	V
Transition frequency	f_T	V_{CE}=10V,I_C=10mA	200			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz			6	pF

CLASSIFICATION OF $h_{FE(1)}$

RANK	R	O	Y
RANGE	40－80	70－140	120－240
MARKING	CHR	CHO	CHY