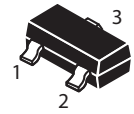
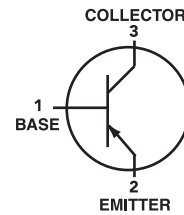


### PNP General Purpose Transistors

 Lead(Pb)-Free



SOT-23

#### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CEO}$	-45	Vdc
Collector-Base Voltage	$V_{CBO}$	-50	Vdc
Emitter-Base Voltage	$V_{EBO}$	-5	Vdc
Collector Current-Continuous	$I_C$	-100	mAdc

#### THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (1) TA=25 °C	$P_D$	200	mW
Derate above 25 °C		1.6	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction and Storage, Temperature	$T_J, T_{stg}$	-55 to +150	°C

#### DEVICE MARKING

S9015=M6

#### ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
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#### OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ( $I_C = -0.1 \text{ mAdc}, I_E = 0$ )	$V_{(BR)CEO}$	-45	-	Vdc
Collector-Base Breakdown Voltage ( $I_C = -100 \mu\text{Adc}, I_E = 0$ )	$V_{(BR)CBO}$	-40	-	Vdc
Emitter-Base Breakdown Voltage ( $I_E = -100 \mu\text{Adc}, I_C = 0$ )	$V_{(BR)EBO}$	-5.0	-	Vdc
Collector Cutoff Current ( $V_{CE} = -45 \text{ Vdc}, I_E = 0$ )	$I_{CEO}$	-	-0.1	$\mu\text{Adc}$
Collector Cutoff Current ( $V_{CB} = -50 \text{ Vdc}, I_E = 0$ )	$I_{CBO}$	-	-0.1	$\mu\text{Adc}$
Emitter Cutoff Current ( $V_{EB} = -5.0 \text{ Vdc}, I_C = 0$ )	$I_{EBO}$	-	-0.1	$\mu\text{Adc}$

1.FR-5=1.0 x 0.75 x 0.062 in

# S9015LT1



## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted) (Continued)

Characteristics	Symbol	Min	Max	Unit
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### ON CHARACTERISTICS

DC Current Gain ( $I_C=-1.0\text{ mAdc}$ , $V_{CE}=-5.0\text{ Vdc}$ )	$h_{FE}$	200	1000	-
Collector-Emitter Saturation Voltage ( $I_C=-100\text{ mAdc}$ , $I_B=-10\text{ mAdc}$ )	$V_{CE(\text{sat})}$	-	-0.3	Vdc
Base-Emitter Saturation Voltage ( $I_C=-100\text{ mAdc}$ , $I_B=-10\text{ mAdc}$ )	$V_{BE(\text{sat})}$	-	-1.0	Vdc
Current-Gain-Bandwidth Product ( $I_C=-10\text{ mAdc}$ , $V_{CE}=-5\text{ Vdc}$ , $f=30\text{ MHz}$ )	$f_T$	150	-	MHz

### CLASSIFICATION OF $h_{FE}$

Rank	L	H
Range	200-450	450-1000

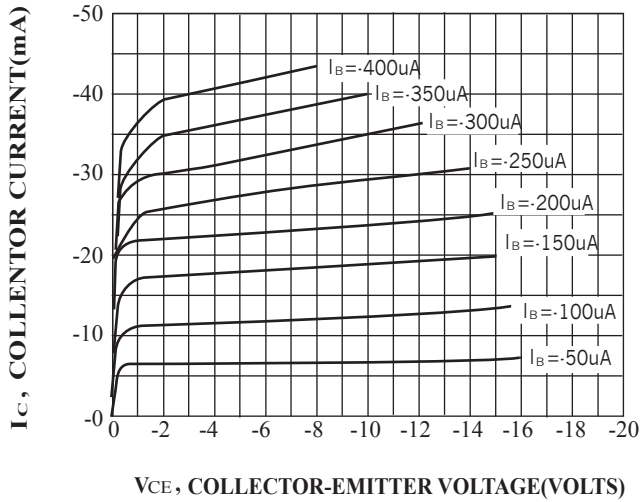


Figure1. Static Characteristic

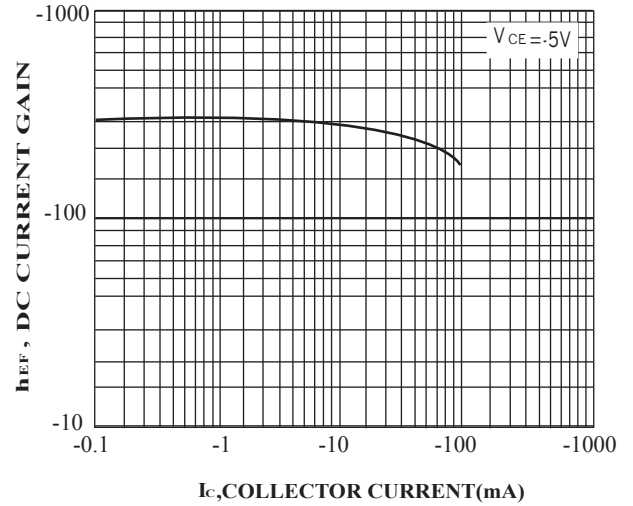


Figure2. DC current Gain

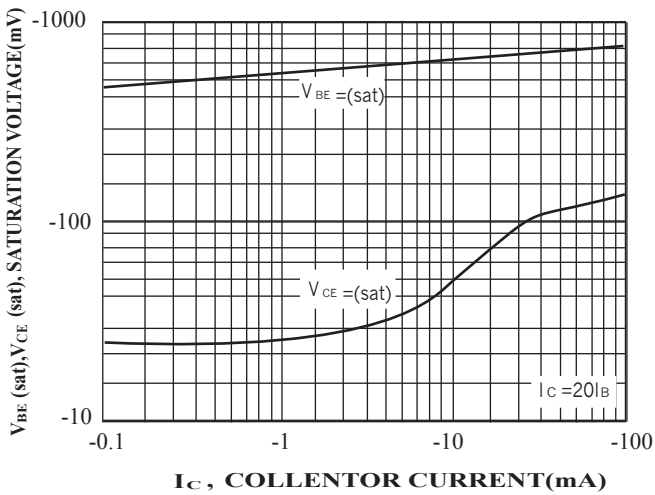


Figure3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

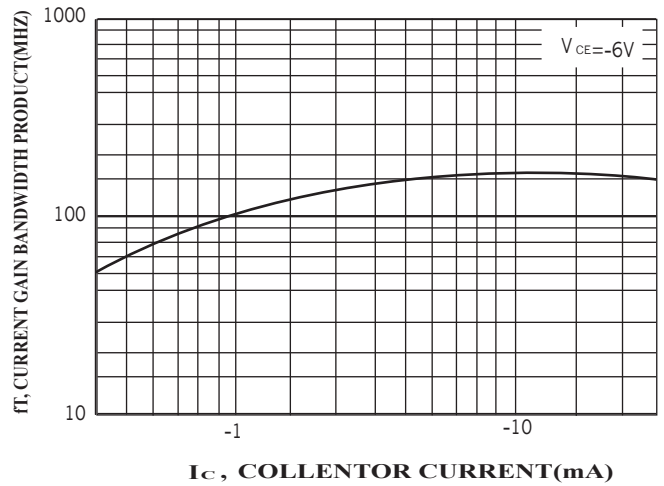


Figure4. Current Gain Bandwidth Product

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