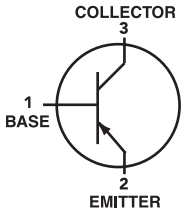
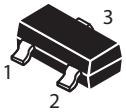
WEITRON

S9015LT1

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 Derate above 25°C	P_D	200 1.6	mW mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction and Storage, Temperature	$T_{J,Tstg}$	-55 to +150	°C

DEVICE MARKING

S9015=M6

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit

OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage (I_C=-0.1mAdc .I_B=0)	$V_{(BR)CEO}$	-45	-	Vdc
Collector-Base Breakdown Voltage (I_C=-100μAdc.I_E=0)	$V_{(BR)CBO}$	-40	-	Vdc
Emitter-Base Breakdown Voltage (I_E=-100μAdc.I_C=0)	$V_{(BR)EBO}$	-5.0	-	Vdc
Collector Cutoff Current (V_{CE}=-45V_{dc},I_E= 0)	I_{CEO}	-	-0.1	uAdc
Collector Cutoff Current (V_{CB}=-50Vdc,I_E=0)	I_{CBO}	-	-0.1	uAdc
Emitter Cutoff Current (V_{EB}=-5.0Vdc,I_C=0)	I_{EBO}	-	-0.1	uAdc

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

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted) (Countinued)

Characteristics	Symbol	Min	Max	Unit

ON CHARACTERISTICS

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

CLASSIFICATION OF h_{FE}

Rank	L	H
Range	200-450	450-1000

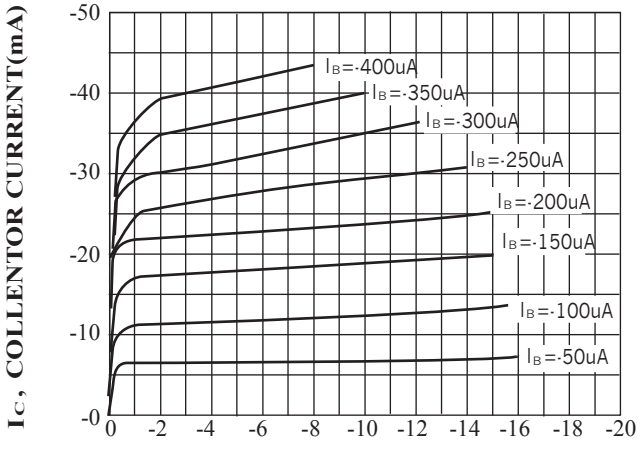


Figure1. Static Characteristic

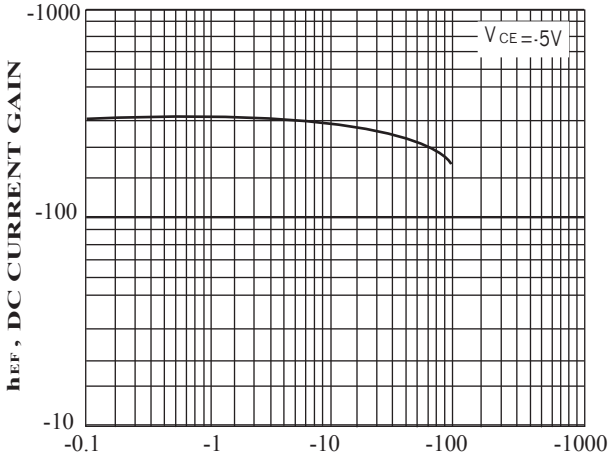


Figure2. DC current Gain

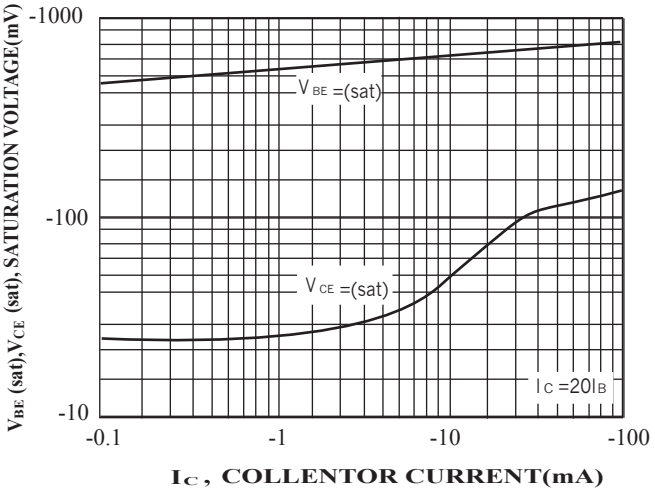


Figure3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

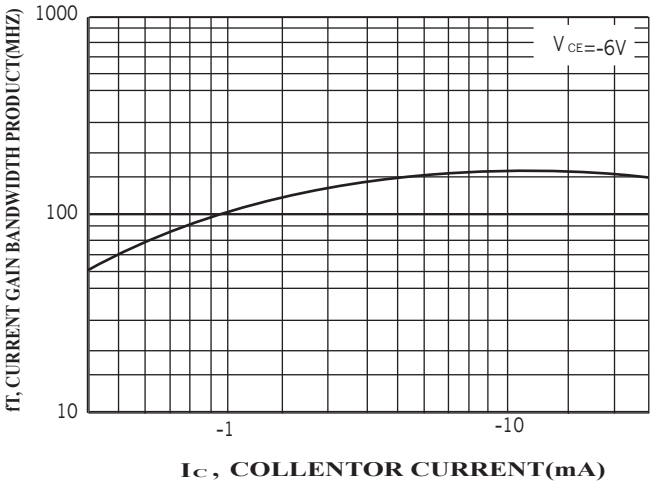


Figure4. Current Gain Bandwidth Product