HFZT

MMBTA55

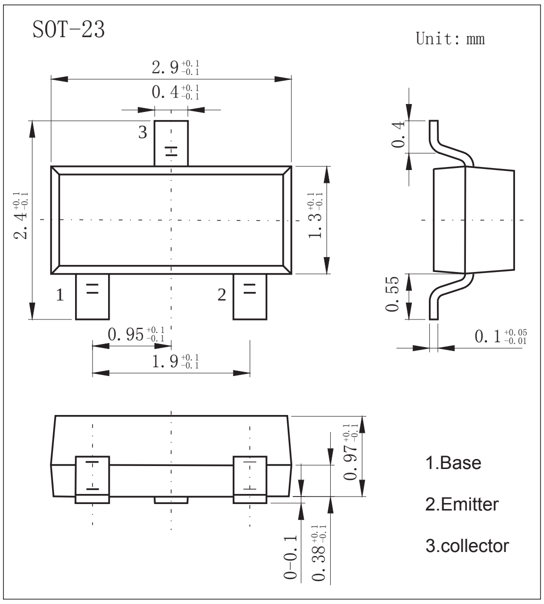
SOT-23 Plastic-Encapsulate Transistors

Features

- Collector Current Capability I_C=-0.5A
- Collector Emitter Voltage V_{CEO}=-60V
- PNP Transistors

MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-60	V
Collector - Emitter Voltage	V_{CEO}	-60	
Emitter - Base Voltage	V_{EBO}	-4	
Collector Current - Continuous	I_C	-0.5	A
Collector Power Dissipation	P_C	225	mW
Derate Above 25°C		1.8	mW/℃
Thermal Resistance Junction−to−Ambient	$R_{\theta JA}$	556	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

PACKAGE INFORMATION

Device	Package	Shipping
MMBTA55	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA， I_E=0	-60			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA， I_B=0	-60			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A， I_C=0	-4			
Collector-base cut-off current	I_{CBO}	V_{CB}= -60 V , I_E=0			-0.1	uA
Collectorr cut-off current	I_{CES}	V_{CE}= -60 V , I_E=0			-0.1	
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100 mA, I_B=-10mA			-0.25	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C= -100 mA, I_B=-10mA			-1.2	
Base - emitter on voltage	$V_{BE(on)}$	V_{CE}= -1V, I_C= -100mA			-1.2	
DC current gain	h_{FE}	V_{CE}= -1V, I_C= -10mA	100			
		V_{CE}=- 1V, I_C= -100mA	100			
Transition frequency	f_T	V_{CE}= -1V, I_C= -100mA,f=100MHz	50			MHz

Note. Pulse Test: Pulse Width ≤ 300 us, Duty Cycle ≤ 2.0%.

■ Marking

Marking	2H

RATINGS AND CHARACTERISTIC CURVES

■ Typical Characterisitics

Figure 1. Switching Time Test Circuits

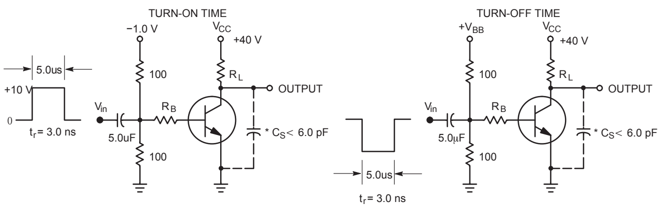


Figure 2. Current−Gain — Bandwidth Product

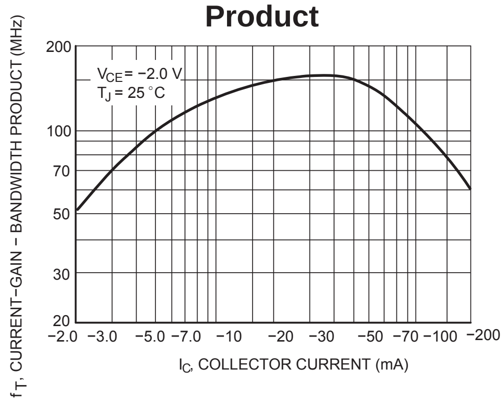


Figure 3. Capacitance

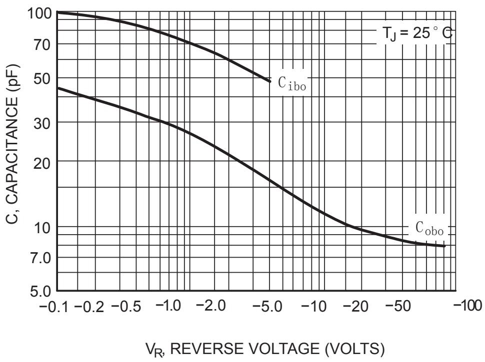


Figure 4. Switching Time

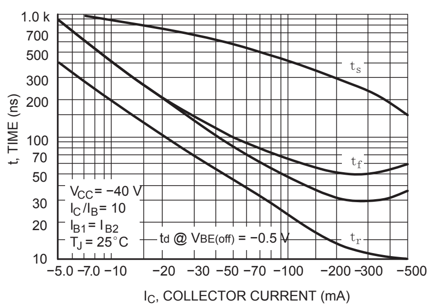


Figure 5. DC Current Gain

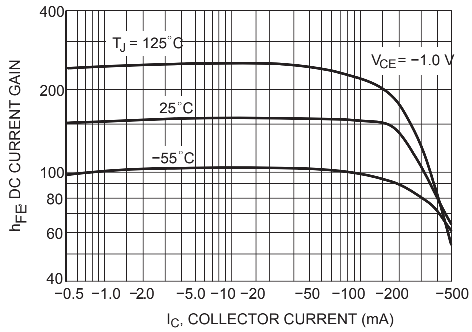


Figure 6. “ON” Voltages

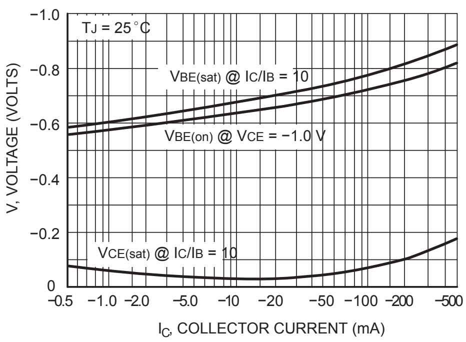


Figure 7. Collector Saturation Region

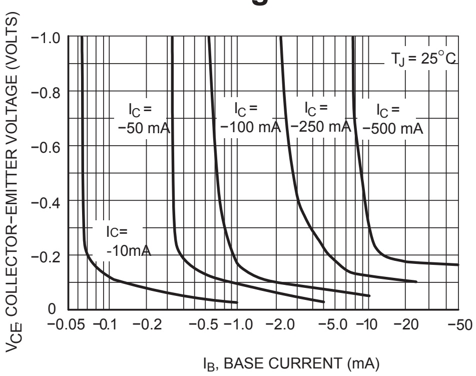


Figure 8. Base−Emitter Temperature Coefficient