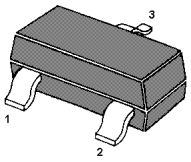
TRANSISTOR (PNP)

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MMBTA55 MARKING:2H
MMBTA56 MARKING:2GM

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	MMBTA55	MMBTA56	Unit
Collector-Base Voltage	V_{CBO}	-60	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	-80	V
Emitter-Base Voltage	V_{EBO}	-4.0		V
Collector Current - Continuous	I_C	-500		mA
Power Dissipation	P_d	300		mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417		°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150		°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	MMBTA55 MMBTA56	$V_{(BR)CBO}$	-60 -80	—	V	I_C = -100μA, I_E = 0
Collector-Emitter Breakdown Voltage	MMBTA55 MMBTA56	$V_{(BR)CEO}$	-60 -80	—	V	I_C = -1.0mA, I_B = 0
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-4.0	—	V	I_E = -100μA, I_C = 0
Collector Cutoff Current	MMBTA55 MMBTA56	I_{CBO}	—	-100	nA	V_{CB} = -60V, I_E = 0 V_{CB} = -80V, I_E = 0
Collector Cutoff Current	MMBTA55 MMBTA56	I_{CEX}	—	-100	nA	V_{CE} = -60V, I_{BO} = 0V V_{CE} = -80V, I_{BO} = 0V
ON CHARACTERISTICS						
DC Current Gain		h_{FE}	100	—	—	I_C = -10mA, V_{CE} = -1.0V I_C = -100mA, V_{CE} = -1.0V
Collector-Emitter Saturation Voltage		$V_{CE(SAT)}$	—	-0.25	V	I_C = -100mA, I_B = -10mA
Base-Emitter Saturation Voltage		$V_{BE(SAT)}$	—	-1.2	V	I_C = -100mA, V_{CE} = -1.0V
SMALL SIGNAL CHARACTERISTICS						
Current Gain-Bandwidth Product		f_T	50	—	MHz	V_{CE} = -1.0V, I_C = -100mA, f = 100MHz

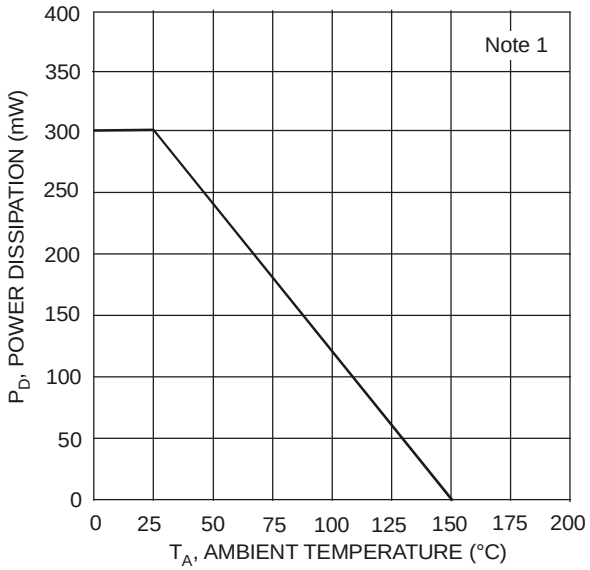


Fig. 1 Max Power Dissipation vs Ambient Temperature

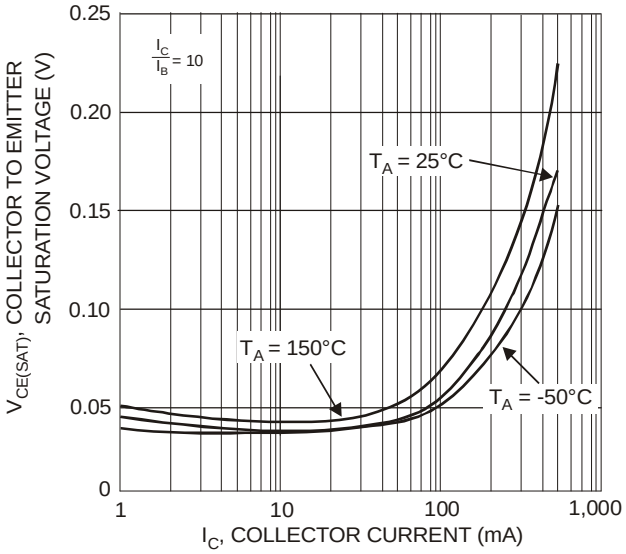


Fig. 2 Collector Emitter Saturation Voltage vs. Collector Current

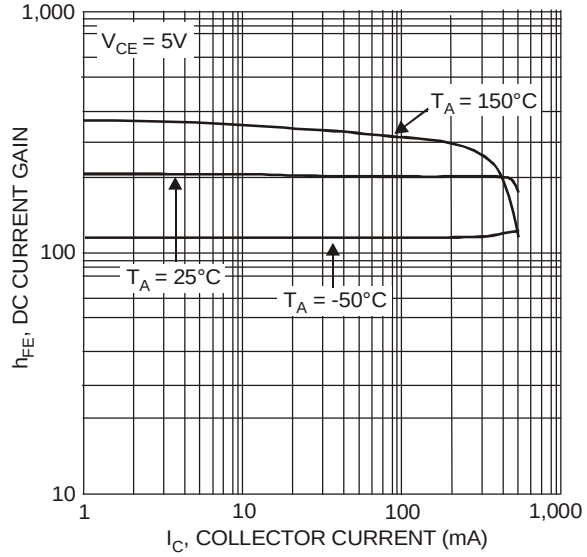


Fig. 3 DC Current Gain vs. Collector Current

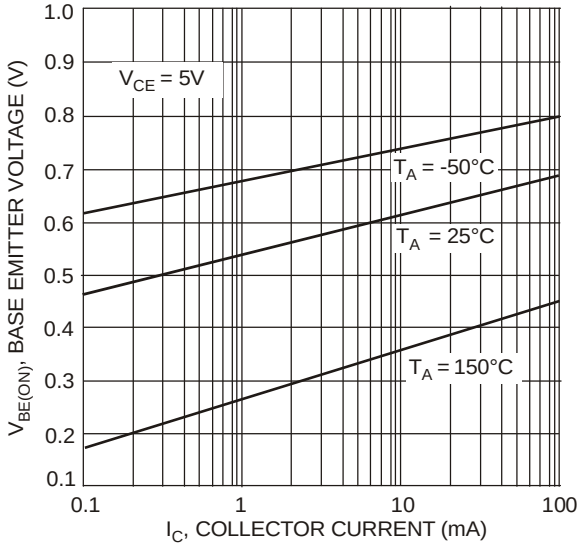


Fig. 4 Base Emitter Voltage vs. Collector Current

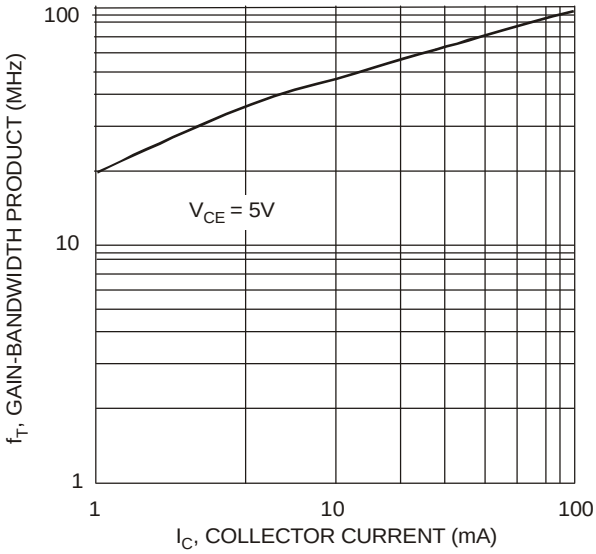
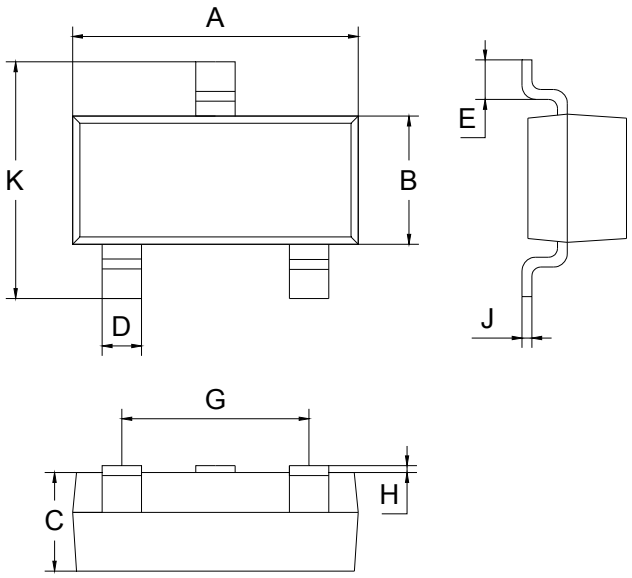


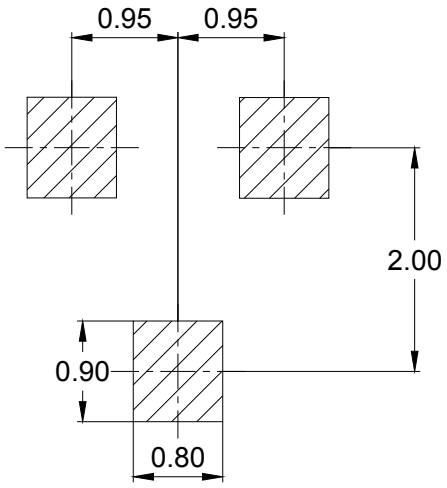
Fig. 5 Gain-Bandwidth Product vs. Collector Current

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm