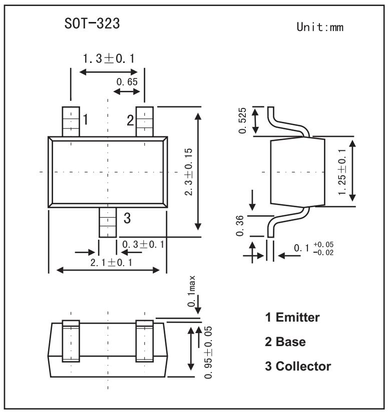
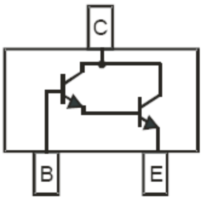
MMSTA13



■ Features

- Epitaxial Planar Die Construction
- Ideal for Medium Power Amplification and Switching
- High Current Gain



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	300	mA
Power Dissipation	P_d	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	℃/W
Operating and Storage and Temperature Range	T_j, T_{STG}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V_{CBO}	I_C = 100μA, I_E = 0	30			V
Collector Cutoff Current	I_{CBO}	V_{CB} = 30V, I_E = 0			100	nA
Collector Cutoff Current	I_{EBO}	V_{CE} = 10V, I_C = 0			100	nA
DC Current Gain	h_{FE}	I_C = 10mA, V_{CE} = 5V	5,000			
		I_C = 100mA, V_{CE} =5V	10,000			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 100mA, I_B = 100μA			1.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 100mA, V_{CE}=5.0V			2.0	V
Output Capacitance	C_{obo}	V_{CB} = 10V, f = 1.0MHz, I_E = 0		8.1		pF
Input Capacitance	C_{ibo}	V_{EB} = 0.5V, f = 1.0MHz, I_C = 0		15		pF
Current Gain-Bandwidth Product	f_T	V_{CE} = 5.0V, I_C =10mA,f = 100MHz	125			MHz

■ Marking

Marking	K2D

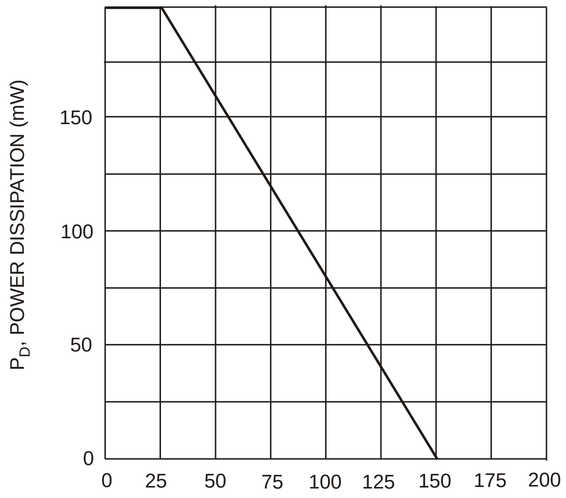


Fig. 1, Max Power Dissipation vs Ambient Temperature

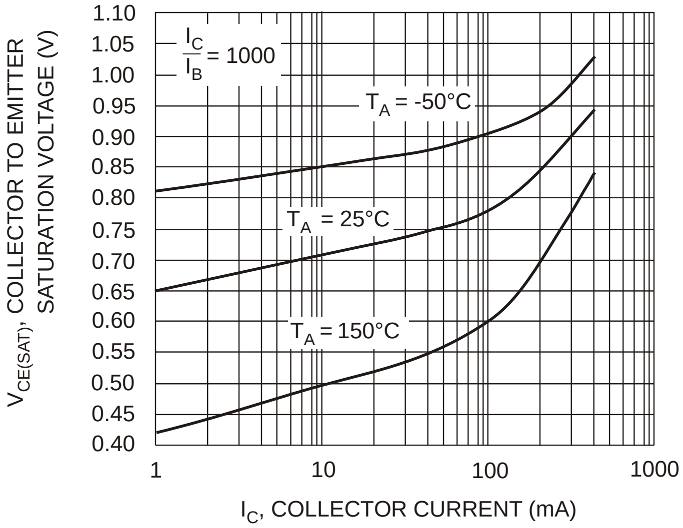


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

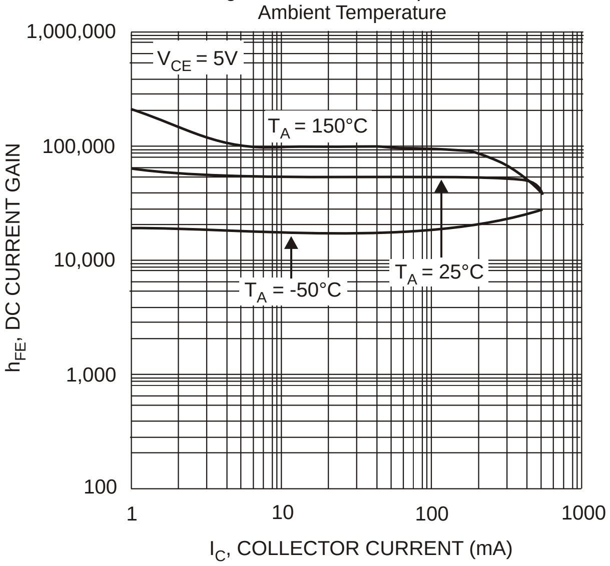


Fig. 3, DC Current Gain vs Collector Current

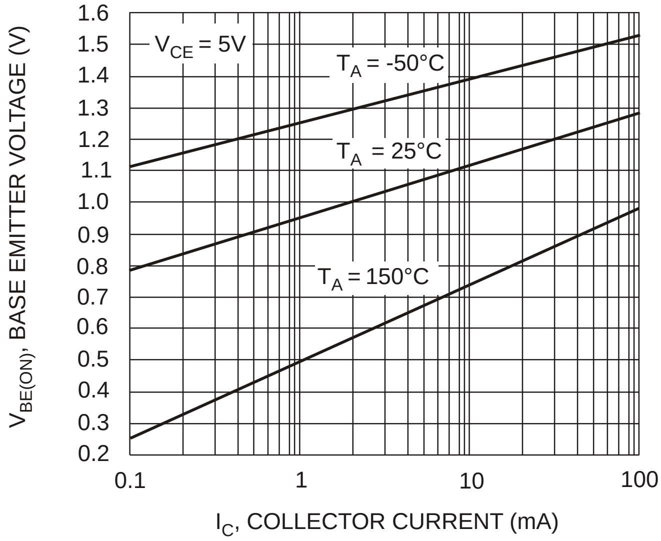


Fig. 4, Base Emitter Voltage vs. Collector Current

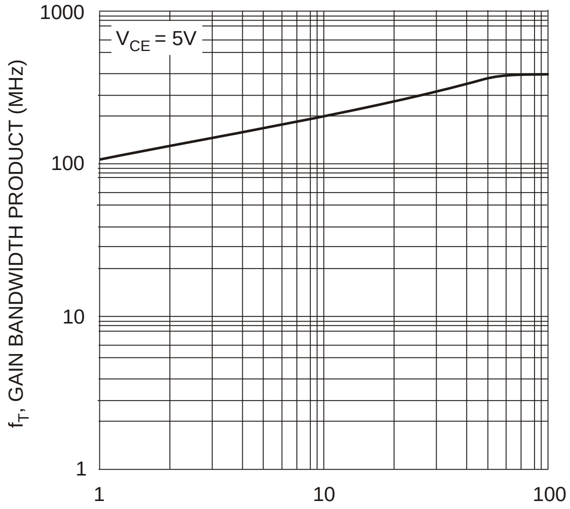


Fig. 5, Gain Bandwidth Product
vs Collector Current