

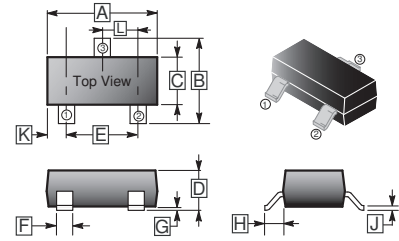
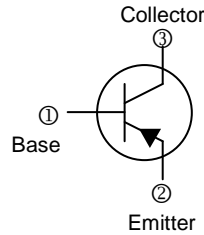
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

SOT-323

FEATURE

- Ideal for Medium Power Amplification and Switching
- Also Available in Lead Free Version
- Complementary to MMBT5551W

MARKING: K4M



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100	REF.
B	1.80	2.45	H	0.525	REF.
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650	TYP.
F	0.20	0.40			

MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	V _{CB0}	-160	V
Collector to Emitter Voltage	V _{CEO}	-150	V
Emitter to Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-200	mA
Collector Power Dissipation	P _C	200	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	625	°C/W
Operating & Storage Temperature	T _J , T _{STG}	150, -55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT	TEST CONDITION
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-160		V	I _C =-100μA, I _E =0
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	-150		V	I _C = -1mA, I _B = 0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5		V	I _E =-10μA, I _C =0
Collector Cutoff Current	I _{CB0}		-50	nA	V _{CB} =-120V, I _E =0
Emitter Cutoff Current	I _{EBO}		-50	nA	V _{EB} =-3V, I _C =0
DC Current Gain	h _{FE1}	50			V _{CE} =-5V, I _C =-1mA
	h _{FE2}	60	240		V _{CE} =-5V, I _C =-10mA
	h _{FE3}	50			V _{CE} =-5V, I _C =-50mA
Collector-Emitter Saturation Voltage	V _{CE(sat)}		-0.2	V	I _C =-10mA, I _B =-1mA
	V _{CE(sat)}		-0.5	V	I _C =-50mA, I _B =-5mA
Base-Emitter Voltage	V _{BE(sat)}		-1	V	I _C =-10mA, I _B =-1mA
	V _{BE(sat)}		-1	V	I _C =-50mA, I _B =-5mA
Transition Frequency	f _T	100		MHz	V _{CE} =-10V, I _C =-10mA, f=100MHz
Collector Output Capacitance	C _{ob}		6	pF	V _{CB} =-10V, I _E =0, f=1MHz
Noise Figure	NF		8	dB	V _{CE} =-5V, I _C =-0.2mA, f=1KHz, R _S =10Ω

CHARACTERISTIC CURVES

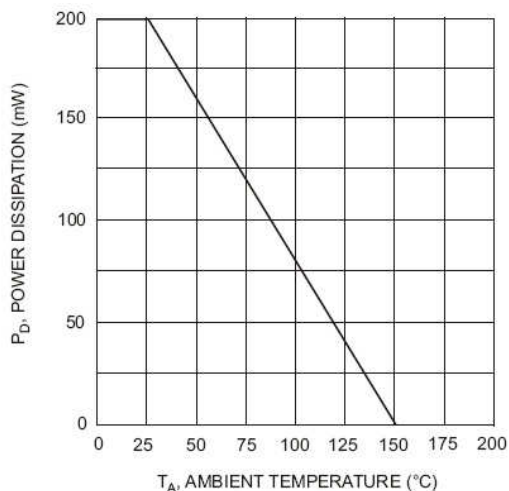


Fig. 1, Max Power Dissipation vs Ambient Temperature

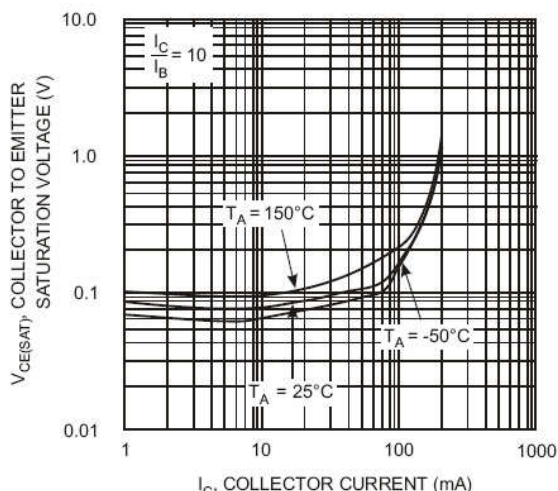


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

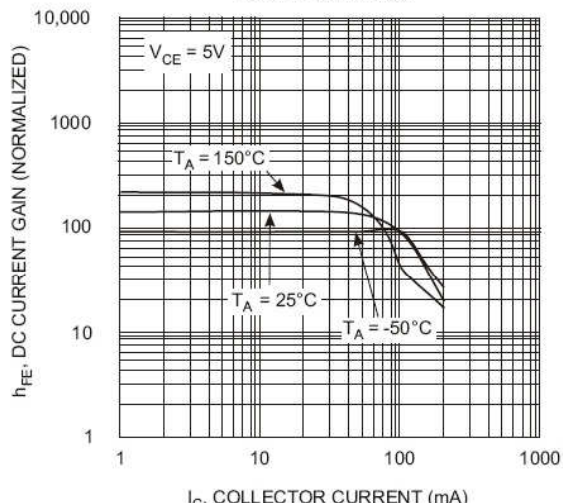


Fig. 3, DC Current Gain vs. Collector Current

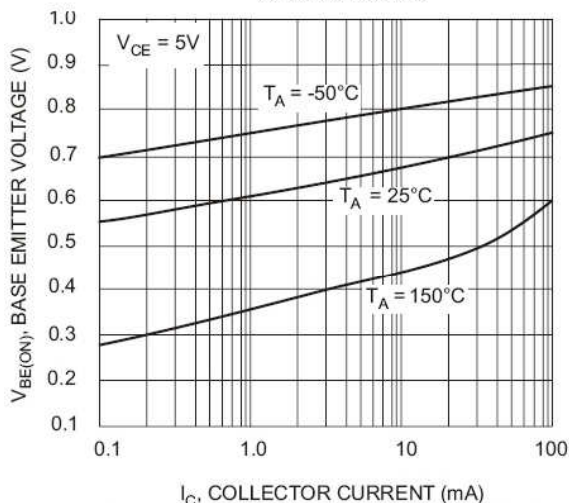


Fig. 4, Base Emitter Voltage vs. Collector Current

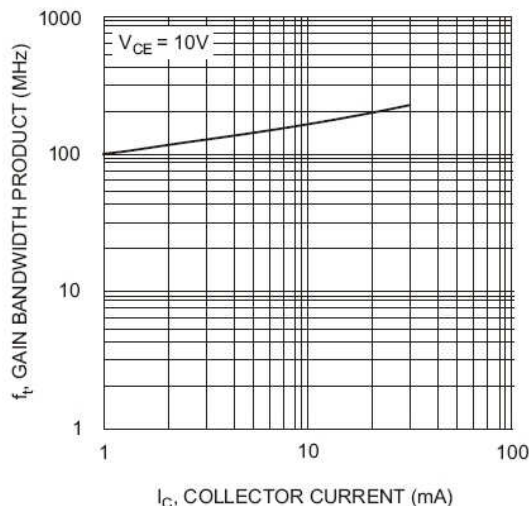


Fig. 5, Gain Bandwidth Product vs Collector Current