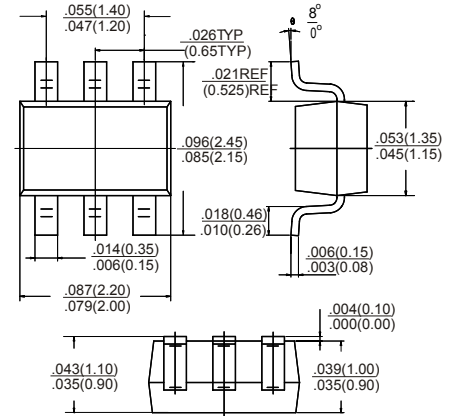
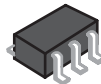
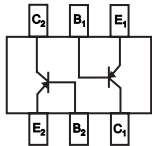


RoHS Compliant Product

SOT-363

Features

- * Epitaxial Planar Die Construction
- * Complementary NPN Type Available (MMDT5551)



Dimensions in inches and (millimeters)

Marking : K4M

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-0.2	A
Collector Dissipation	P_C	0.2	W
Operating Junction and Storage Temperature Range	T_j, T_{stg}	-55~+150	°C

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -120V, I_E = 0$			-0.05	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3V, I_C = 0$			-0.05	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -5V, I_C = -1mA$	50			
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -10mA$	60		240	
	$h_{FE(3)}$	$V_{CE} = -5V, I_C = -50mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -10mA, I_B = -1mA$			-0.2	V
	$V_{CE(sat)2}$	$I_C = -50mA, I_B = -5mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -10mA, I_B = -1mA$			-1	V
	$V_{BE(sat)2}$	$I_C = -50mA, I_B = -5mA$			-1	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -10mA, f = 100MHz$	100		300	MHz
Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$			6	pF
Noise Figure	NF	$V_{CE} = -5.0V, I_C = -200\mu A, R_s = 10\Omega, f = 1.0kHz$			8.0	dB

Typical Characteristics

MMDT5401

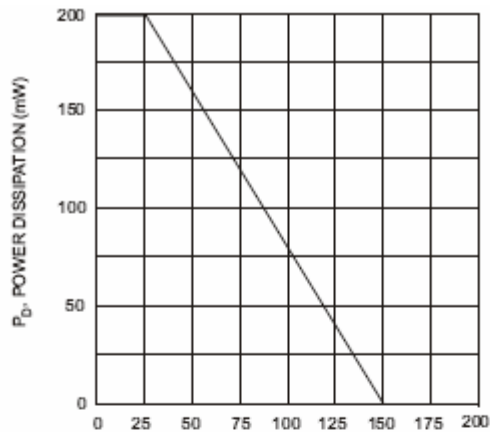


Fig. 1, Max Power Dissipation vs Ambient Temperature

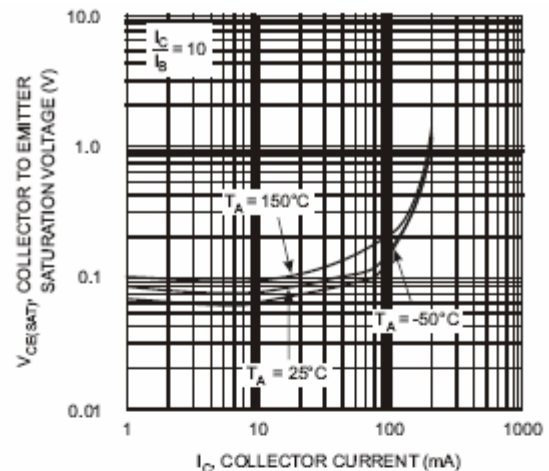


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

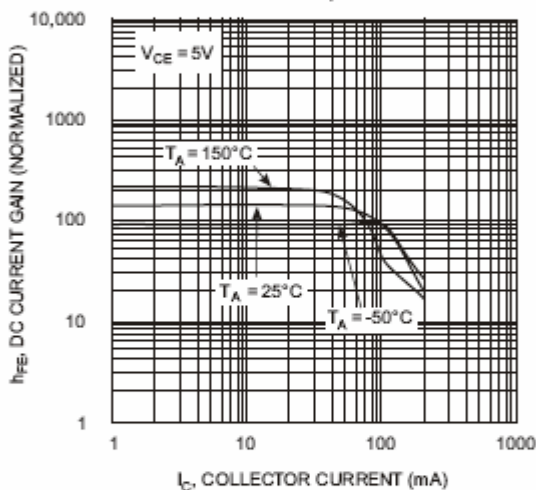


Fig. 3, DC Current Gain vs. Collector Current

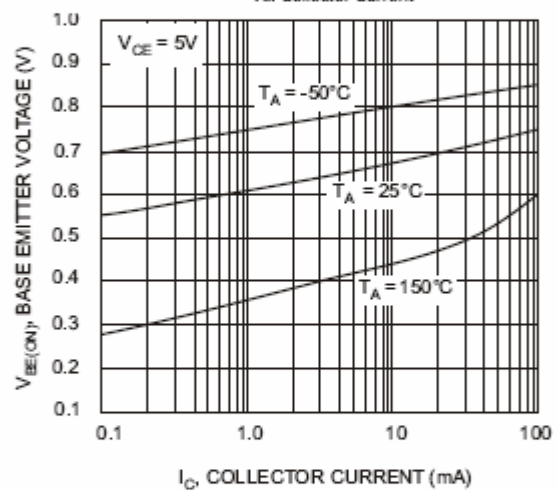


Fig. 4, Base Emitter Voltage vs. Collector Current

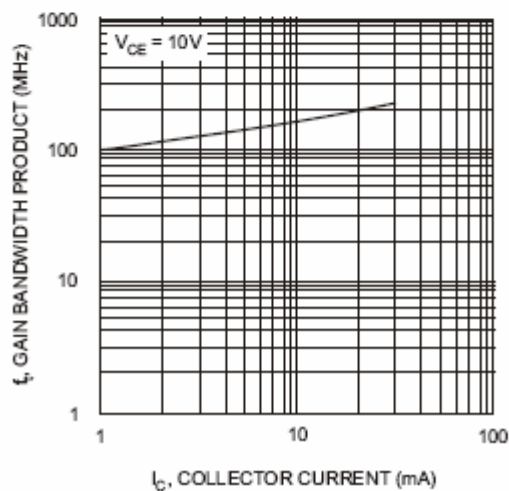


Fig. 5, Gain Bandwidth Product vs Collector Current