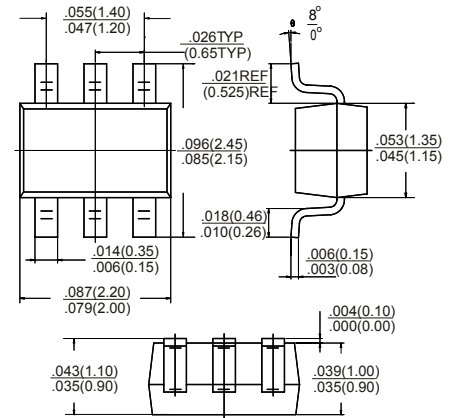
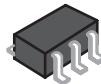
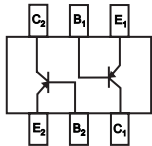


RoHS Compliant Product

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)

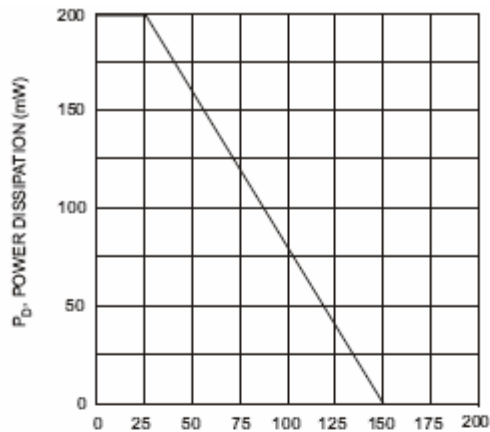
Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-0.2	A
Collector Dissipation	P_C	0.2	W
Operating Junction and Storage Temperature Range	T_j, T_{stg}	-55~+150	°C

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

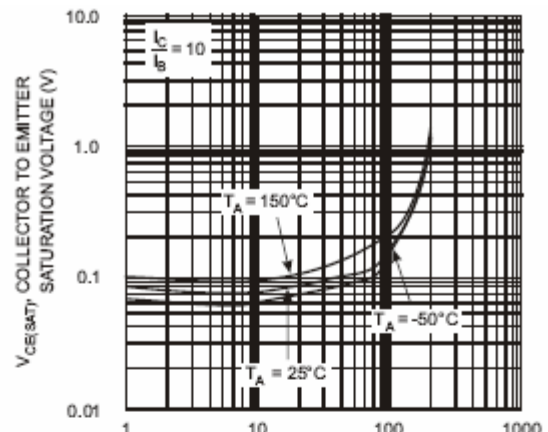
Typical Characteristics

MMDT5401



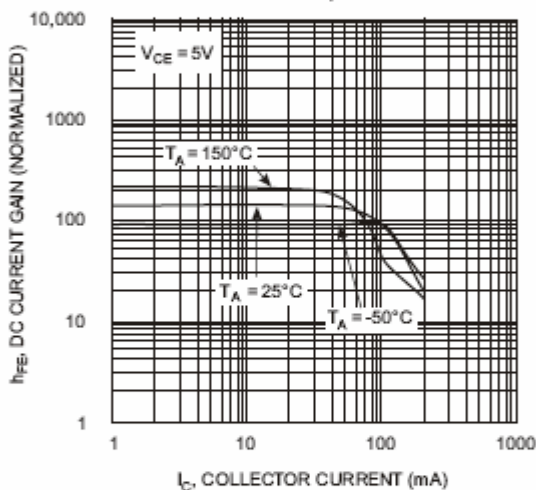
T_A , AMBIENT TEMPERATURE (°C)

Fig. 1, Max Power Dissipation vs Ambient Temperature



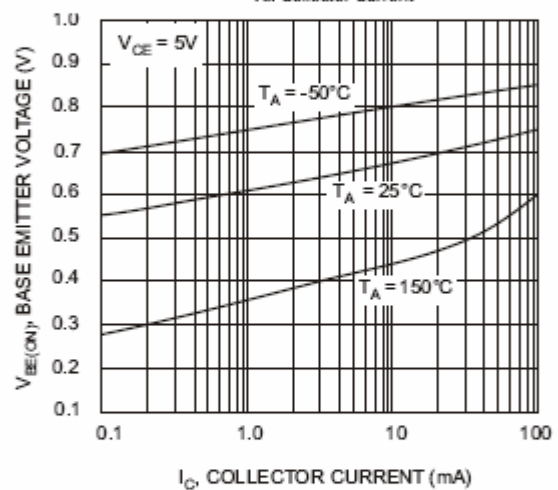
I_C , COLLECTOR CURRENT (mA)

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



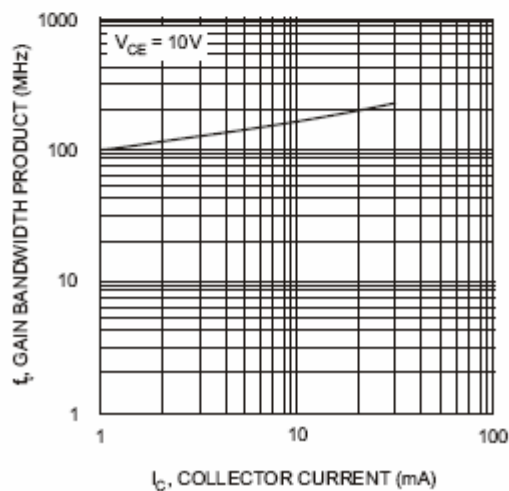
I_C , COLLECTOR CURRENT (mA)

Fig. 3, DC Current Gain vs. Collector Current



I_C , COLLECTOR CURRENT (mA)

Fig. 4, Base Emitter Voltage vs. Collector Current



I_C , COLLECTOR CURRENT (mA)

Fig. 5, Gain Bandwidth Product vs Collector Current