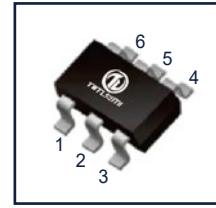
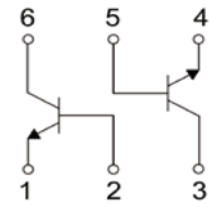


Features

- Complementary PNP Type available MMDT2907A



SOT-363



Equivalent Circuit

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	75	V
V_{CE0}	Collector-Emitter Voltage	40	V
V_{EB0}	Emitter-Base Voltage	6	V
I_C	Collector Current	0.6	A
P_C	Collector Power Dissipation	200	mW
T_J, T_{stg}	Operation Junction And Storage Temperature Range	$-55 \sim +150$	$^{\circ}\text{C}$

Ordering information

Product ID	Pack	Naming rule	Marking	$h_{FE}(1)$	Qty(PCS)
MMDT2222A	SOT-363	MMDT2222A 产品名称 product name	K1P	100-300	3000

Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =10μA, I _E =0	75			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA, I _B =0	40			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10μA, I _C =0	6			V
I _{CBO}	Collector cut-off current	V _{CB} =60V, I _E =0			10	nA
I _{CEX}	Collector cut-off current	V _{CE} =60V, V _{EB(off)} =3V			10	nA
I _{EBO}	Emitter cut-off current	V _{EB} =3V, I _C =0			10	nA
h _{FE(1)}	DC current gain	V _{CE} =10V, I _C =0.1mA	35			
h _{FE(2)}		V _{CE} =10V, I _C =1mA	50			
h _{FE(3)}		V _{CE} =10V, I _C =10mA	75			
h _{FE(4)}		V _{CE} =10V, I _C =150mA	100		300	
h _{FE(5)}		V _{CE} =10V, I _C =500mA	40			
h _{FE(6)}		V _{CE} =1V, I _C =150mA	25			
V _{CE(sat)1}	Collector-emitter saturation voltage	I _C =150mA, I _B =15mA			0.3	V
V _{CE(sat)2}		I _C =500mA, I _B =50mA			1	V
V _{BE(sat)1}	Base-emitter saturation voltage	I _C =150mA, I _B =15mA	0.6		1.2	V
V _{BE(sat)2}	Base-emitter saturation voltage	I _C =500mA, I _B =50mA			2	V
f _T	Transition frequency	V _{CE} =20V, I _C =20mA, f=100MHz	300			MHz
C _{ob}	Output Capacitance	V _{CB} =10V, I _E =0A, f=1MHz			8	pF
C _{ib}	Input Capacitance	V _{EB} =0.5V, I _C =0A, f=1MHz			25	pF
NF	Noise Figure	V _{CE} =10V, I=100μA, f=1KHz, R _S =1KΩ			4	dB

Switching characteristics

Symbol	Parameter	Test conditions	Min	Max	Unit
t _d	Delay time	V _{CC} =30V, I _C =150mA, V _{BE(off)} =0.5V, I _{B1} =15mA		10	ns
t _r	Rise time			25	ns
t _s	Storage time	V _{CC} =30V, I _C =150mA, I _{B1} =-I _{B2} =15mA		225	ns
t _f	Fall time			60	ns

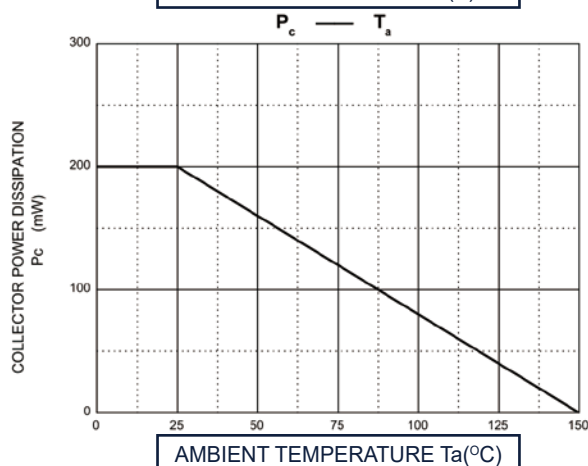
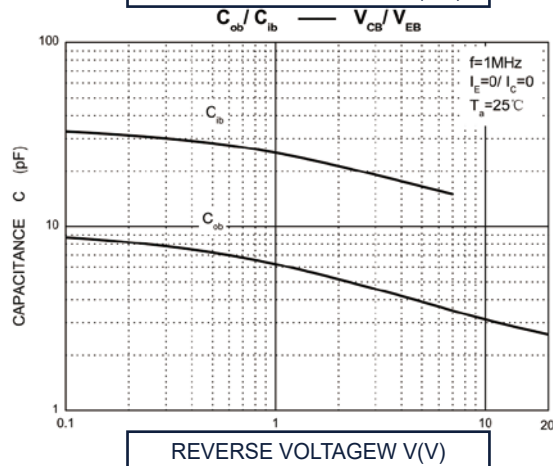
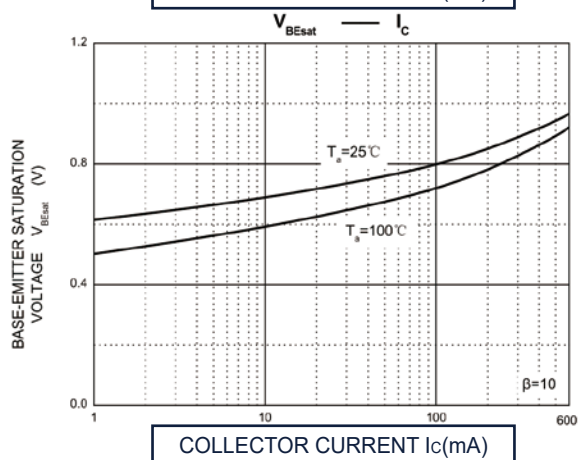
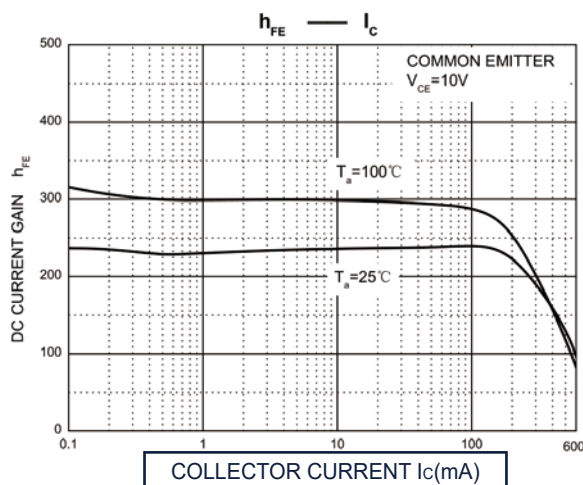
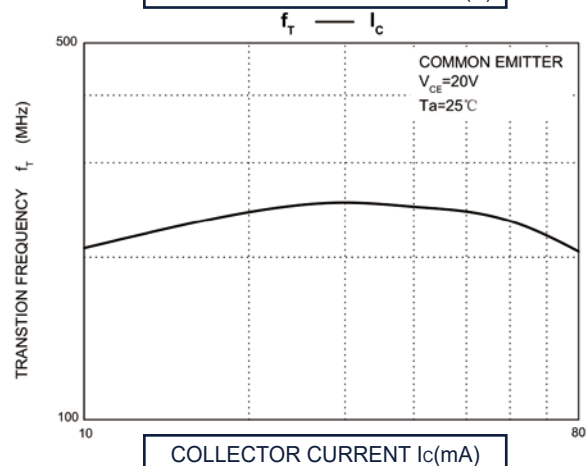
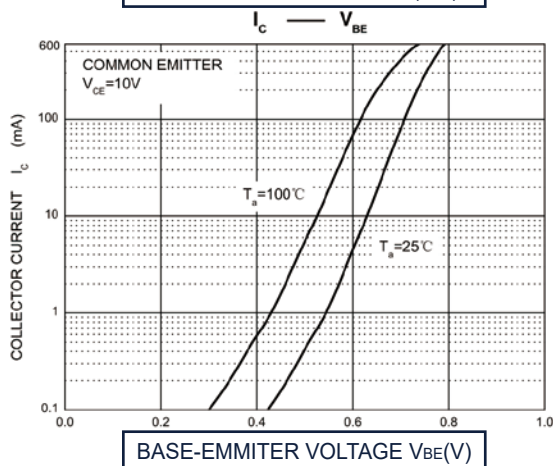
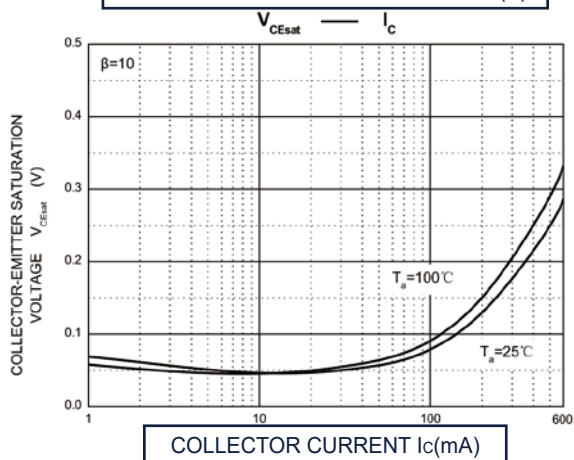
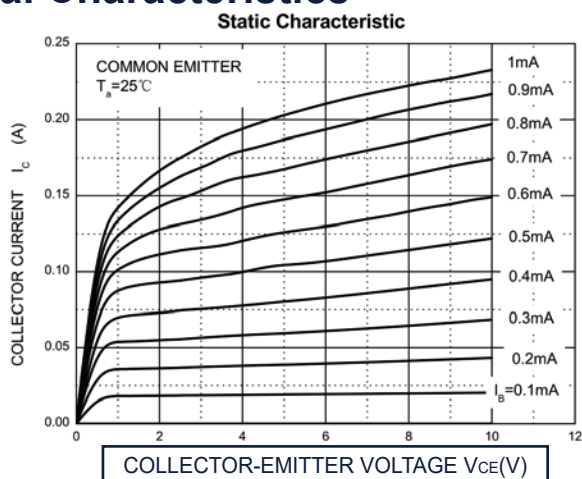


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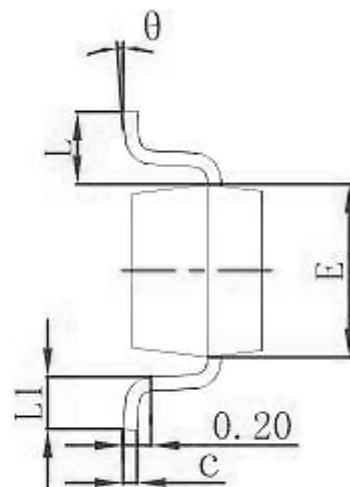
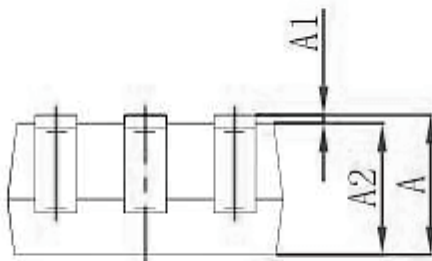
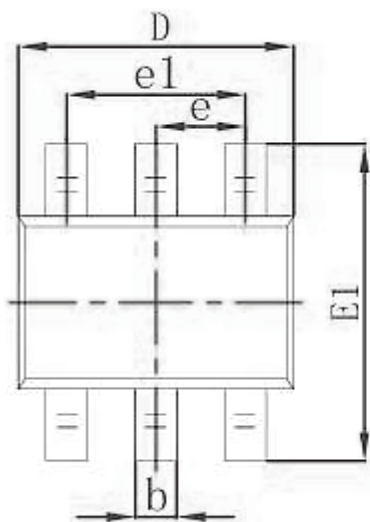
SOT-363 DUAL TRANSISTOR (NPN+NPN)

Typical Characteristics





SOT-363 Package Outline Dimensions



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°