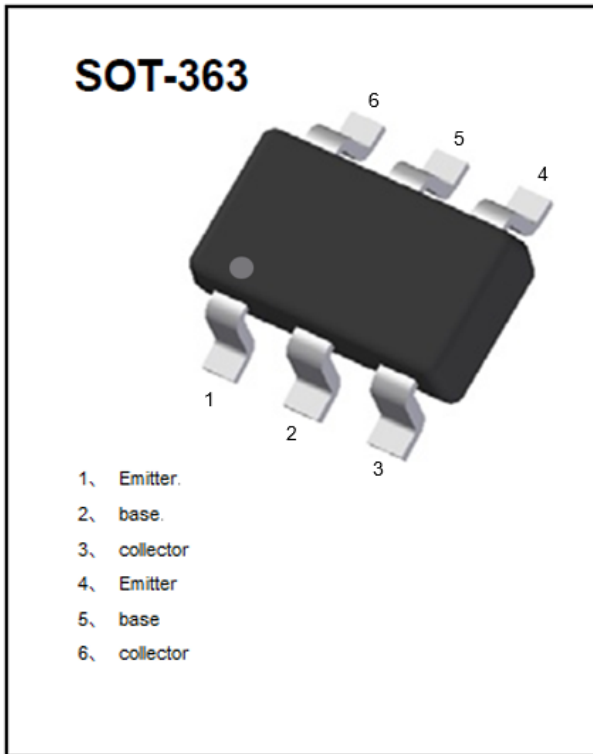


Dual PNP Small Signal Transistor



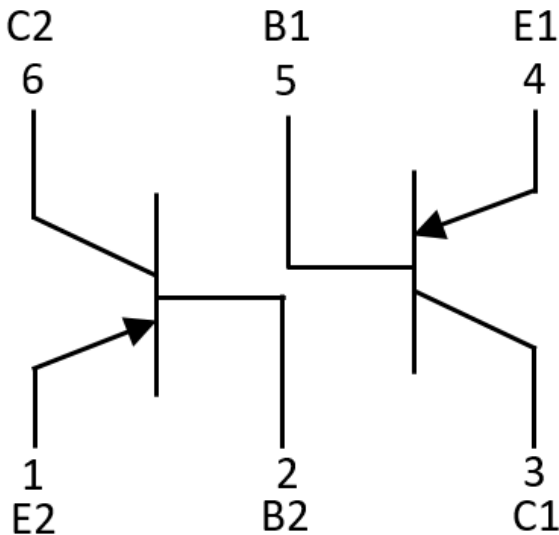
Features

- Epoxy meets UL-94 V-0 flammability rating
- Surface mount package ideally Suited for Automatic Insertion
- PNP

Mechanical Data

- **Package:** SOT-363
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** K3N

Equivalent circuit





MMDT3906

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Collector-Emitter Voltage	V_{CEO}	V	$I_C=-1mA, I_B=0$	-40
Collector-Base Voltage	V_{CBO}	V	$I_C=-10\mu A, I_E=0$	-40
Emitter-Base Voltage	V_{EBO}	V	$I_E=-10\mu A, I_C=0$	-5
Collector Current	I_C	mA		-200
Collector Power Dissipation	P_C	mW		200
Junction Temperature	T_j	°C		-55 to +150
Storage Temperature	T_{stg}	°C		-55 to +150

■ Electrical Characteristics (Ta=25°C unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-base breakdown voltage	V_{CBO}	V	$I_C=-10\mu A, I_E=0$	-40		
Collector-emitter breakdown voltage	V_{CEO}	V	$I_C=-1mA, I_B=0$	-40		
Emitter-base breakdown voltage	V_{EBO}	V	$I_E=-10\mu A, I_C=0$	-5		
Collector-Base cut-off current	I_{CBO}	nA	$V_{CB}=-30V, I_E=0$			-50
Emitter-Base Cut-off current	I_{EBO}	nA	$V_{EB}=-5V, I_C=0$			-50
DC current gain	$h_{FE(1)}$		$V_{CE}=-1V, I_C=-0.1mA$	40		
	$h_{FE(2)}$		$V_{CE}=-1V, I_C=-1mA$	70		
	$h_{FE(3)}$		$V_{CE}=-1V, I_C=-10mA$	100		300
	$h_{FE(4)}$		$V_{CE}=-1V, I_C=-50mA$	60		
	$h_{FE(5)}$		$V_{CE}=-1V, I_C=-100mA$	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=-10mA, I_B=-1mA$			-0.25
			$I_C=-50mA, I_B=-5mA$			-0.4
Baser-emitter saturation voltage	$V_{BE(sat)}$	V	$I_C=-10mA, I_B=-1mA$	-0.65		-0.85
			$I_C=-50mA, I_B=-5mA$			-0.95
Collector-base Output Capacitance	C_{obo}	pF	$V_{CB}=-5.0Vdc, f=1.0MHz, I_E=0$			4.5
Transition frequency	f_T	MHz	$V_{CE}=-20V, I_C=-10mA, f=100MHz$	250		
Noise figure	NF	dB	$V_{CE}=-5V, I_C=-0.1mA, f=1kHz, R_s=1K\Omega$			4



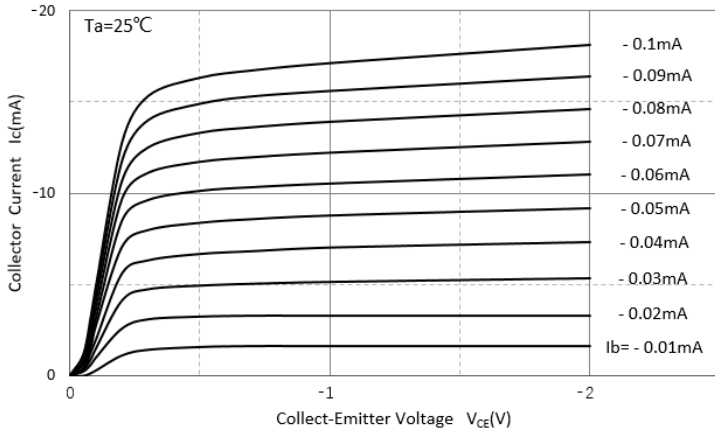
MMDT3906

Ordering Information (Example)

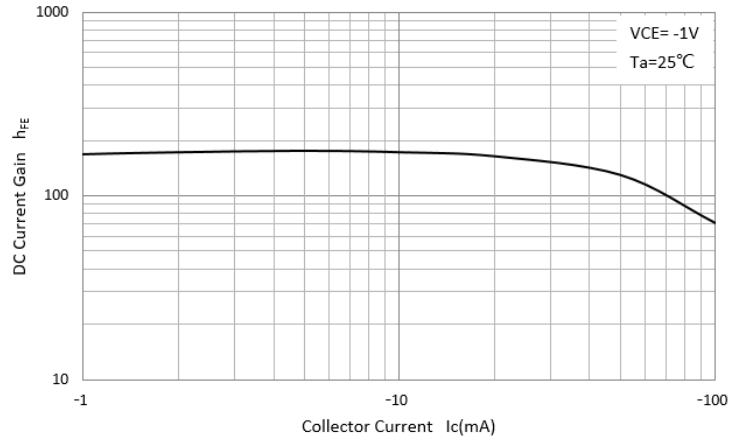
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMDT3906	F2	Approximate 0.009g	3000	30000	120000	7" reel

Characteristics (Typical)

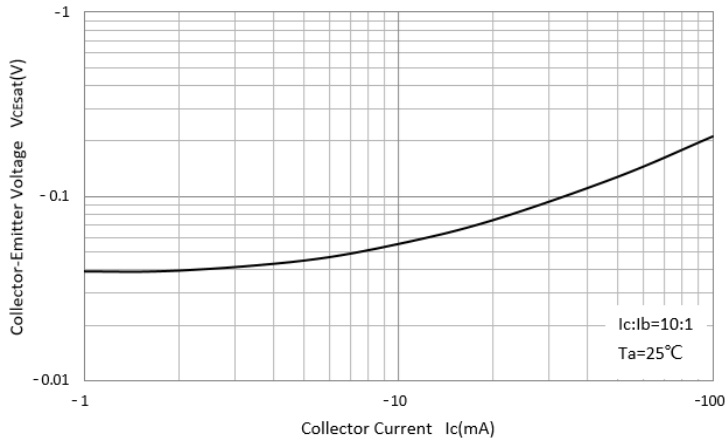
Static Characteristic



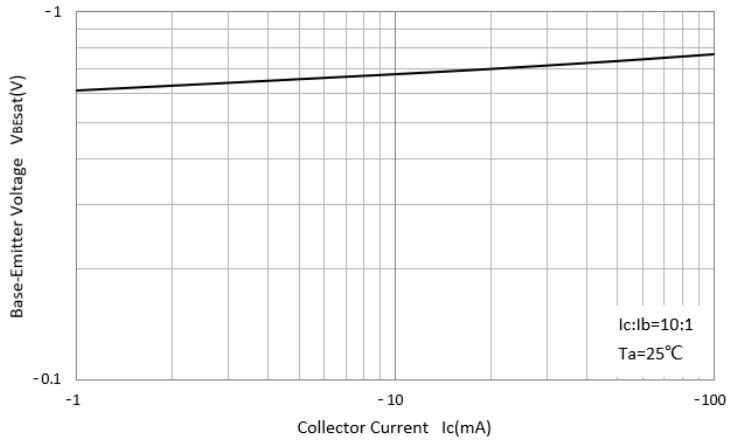
DC Current Gain



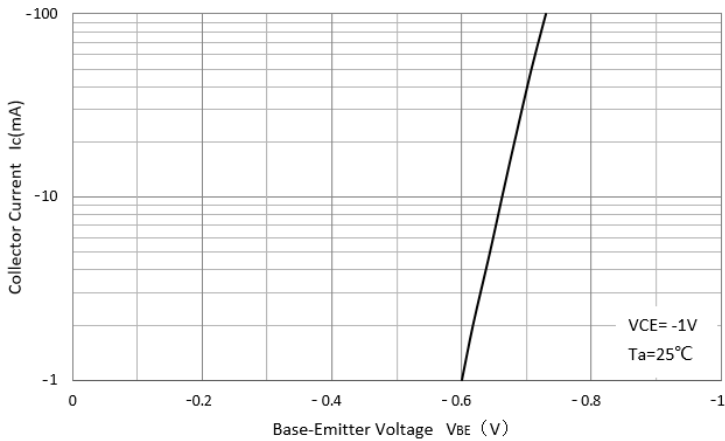
Collector-Emmitter Saturation Voltage



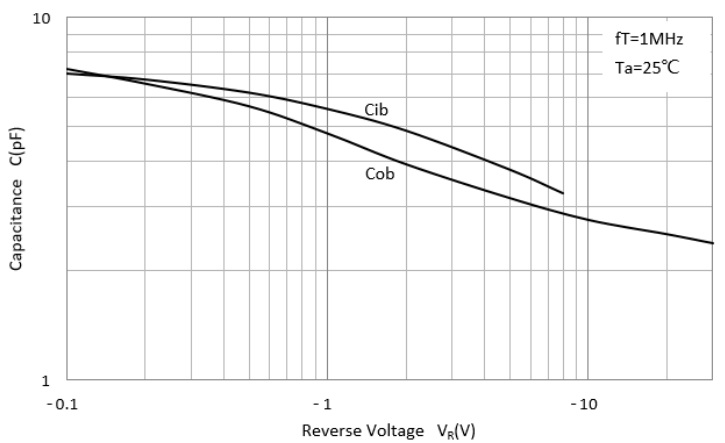
Base-Emmitter Saturation Voltage



Base-Emmitter On Voltage



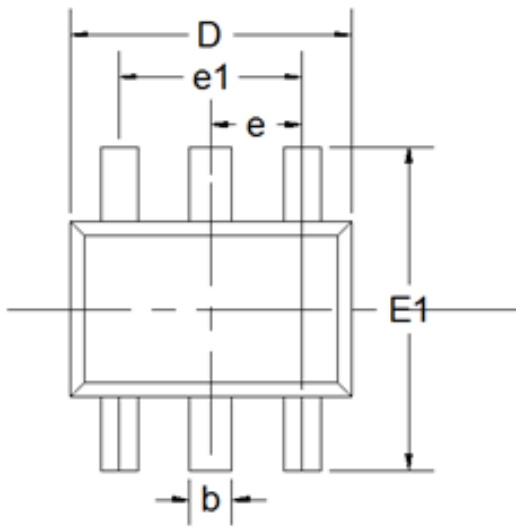
$C_{ob}/C_{ib}-V_{CB}/V_{EB}$



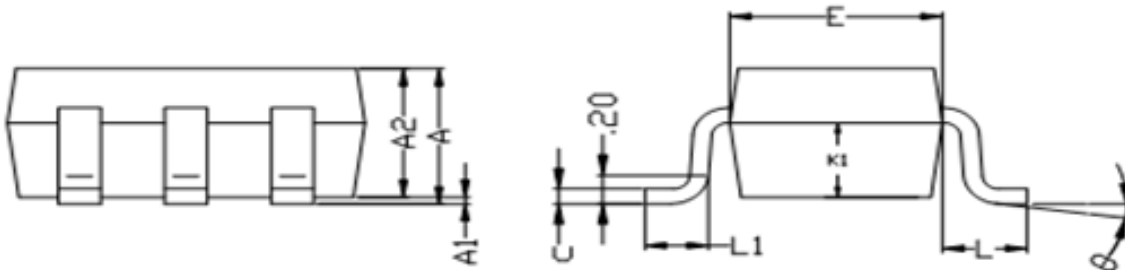


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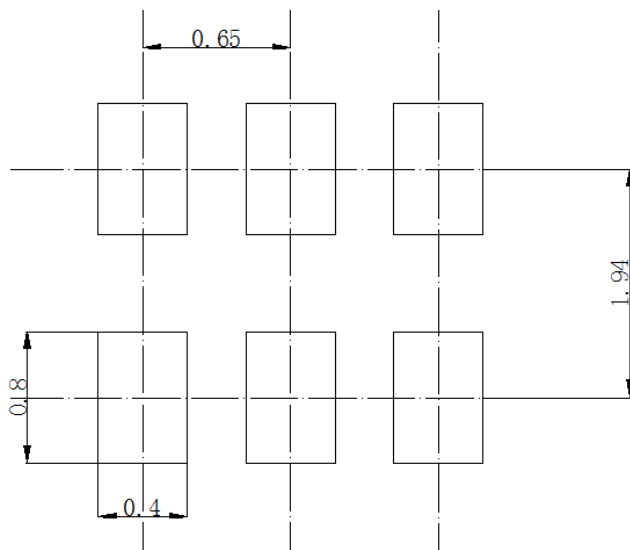
■SOT-363 Package Outline Dimensions



DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.035	0.043	0.9	1.1
A1	0	0.004	0	0.1
A2	0.035	0.039	0.9	1
b	0.006	0.014	0.15	0.35
c	0.002	0.01	0.05	0.25
D	0.079	0.087	2.0	2.2
E	0.045	0.053	1.15	1.35
E1	0.085	0.096	2.15	2.45
e	0.026Typ		0.65Typ	
e1	0.047	0.055	1.2	1.4
L	0.021Typ		0.525Typ	
L1	0.01	0.018	0.26	0.46
e	0°	8°	0°	8°



■SOT-363 Soldering Footprint



Unit: mm



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