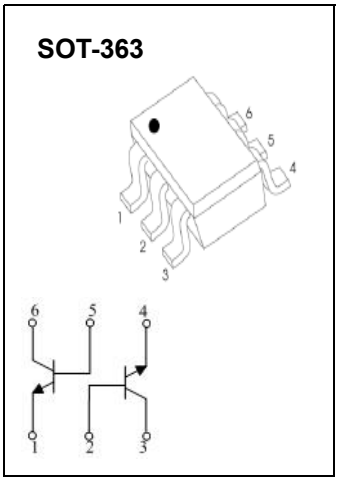
SOT-363 Plastic-Encapsulate Transistors
DUAL TRANSISTOR (NPN+NPN)

FEATURES

- Epoxy meets UL 94 V-0 flammability rating
- Lead Free Finish/RoHS Compliant
- For Switching and AF Amplifier Applications
- Rugged and reliable
- AEC-Q101 qualified (Automotive grade with suffix " Q".)
- Expsemi electronics



MARKING: K6N

MAXIMUM RATINGS （Ta = 25 ℃）

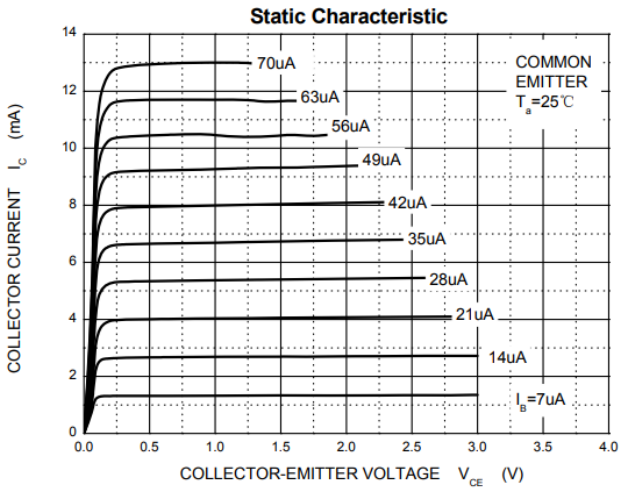
Symbol	Parameter	Value	Units
V_{CBO}	Collector–Base Voltage	60	V
V_{CEO}	Collector–Emitter Voltage	40	V
V_{EBO}	Emitter–Base Voltage	5	V
P_C	Collector Power Dissipation	200	mW
I_C	Collector Current	200	mA
T_J	Junction Temperature	150	℃
$T_{STG,}$	Storage Temperature	−55 to 150	℃

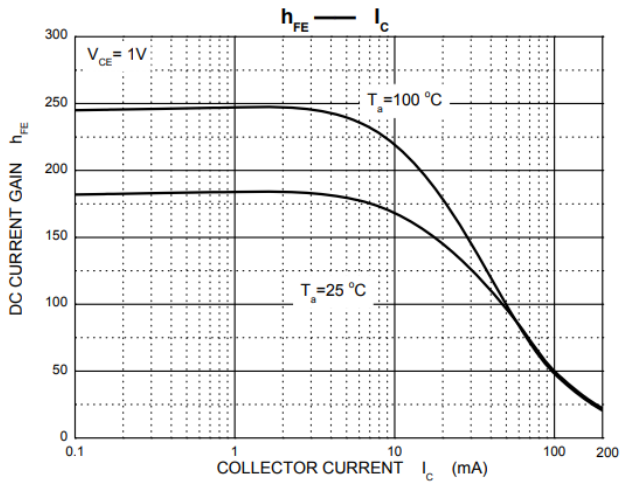
ELECTRICAL CHARACTERISTICS（Ta = 25 ℃）

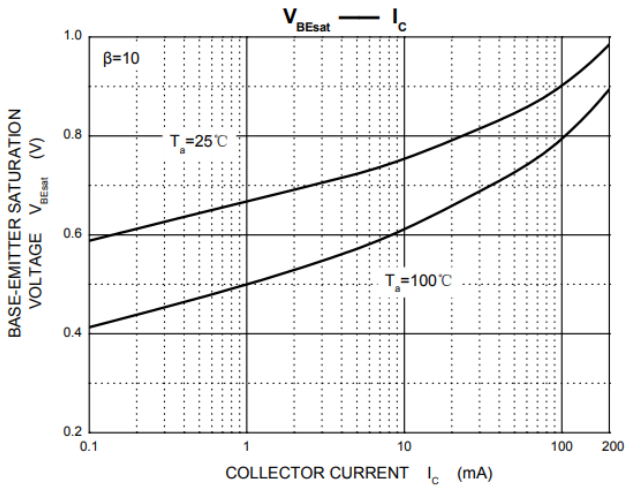
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	Ic=10μA,I_E=0	60			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	Ic=1mA,I_B=0	40			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=10μA,I_C=0	5			V
I_{CBO}	Collector cut-off current	V_{CB}=30V,I_E=0			50	nA
I_{EBO}	Emitter-Base Cutoff Current	V_{EB} =5V, I_C=0			50	nA
I_{CEX}	Collector cut-off current	V_{CE}=30V,$V_{BE(off)}$=3V			50	nA
h_{FE}	DC current gain	V_{CE}=1V,I_C=0.1mA	40			
		V_{CE}=1V,I_C=1mA	70			
		V_{CE}=1V,I_C=10mA	100		300	
		V_{CE}=1V,I_C=50mA	60			
		V_{CE}=1V,I_C=100mA	30			
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=10mA,I_B=1mA			0.2	V
		I_C=50mA,I_B=5mA			0.3	V

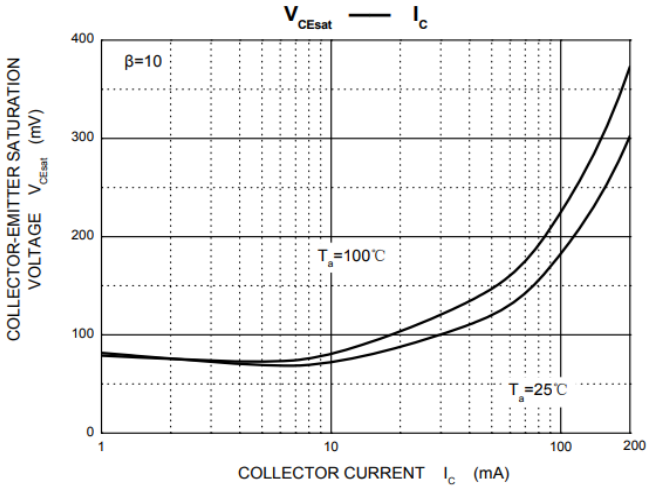
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=10mA,I_B=1mA	0.65		0.85	V
		I_C=50mA,I_B=5mA			0.95	
f_T	Transition frequency	V_{CE}=20V,I_C=10 mA f=100MHz	300			MHZ
Cob	Collector output capacitance	V_{CB}=5V,I_E=0 f=1MHz			4	pF
NF	Noise figure	V_{CE}=5V,Ic=0.1 mA			5	dB
t_d	Delay time	V_{CC}=3V, $V_{BE(off)}$=-0.5V I_C=10mA , I_{B1}=-1mA V_{CC}=3V, I_C=10mA I_{B1}=-I_{B2}=1mA			35	nS
t_r	Rise time				35	nS
t_s	Storage time				200	nS
t_f	Fall time				50	nS

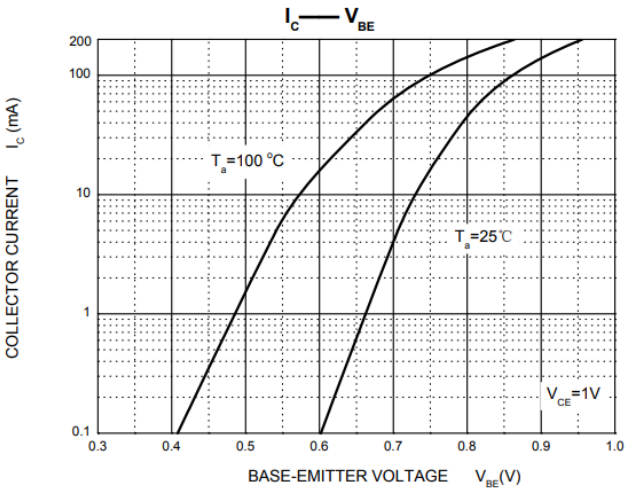
Typical Characteristics

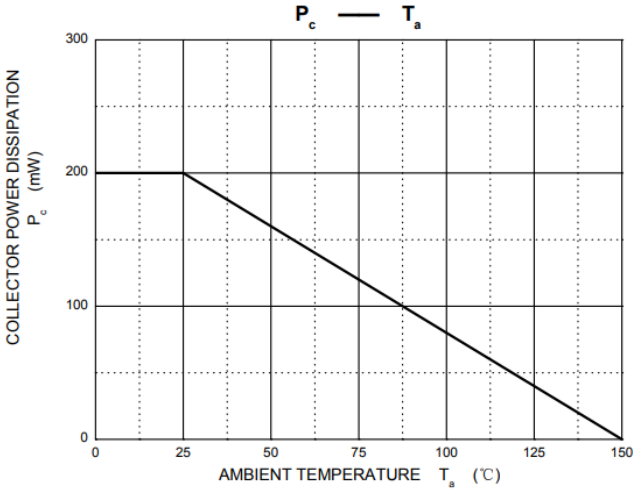




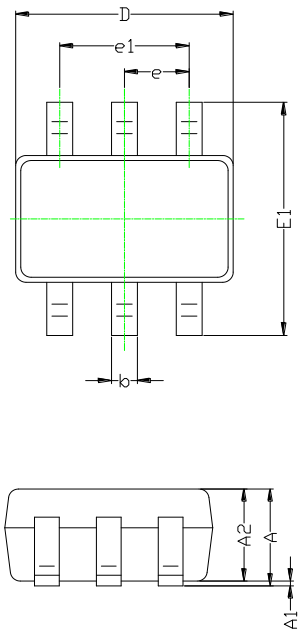


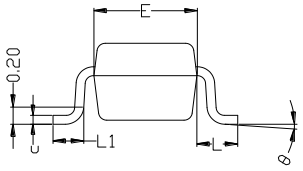






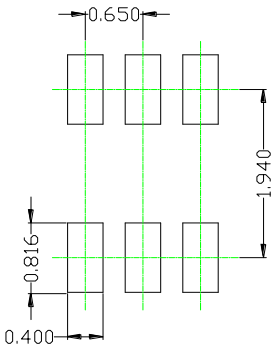
SOT-363 Package Outline Dimensions





SYMBOL	DIMENSIONS IN MILLIMETER	
	MIN	MAX
A	0.900	1.000
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.100	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	0°	8°

SOT-363 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

Ordering information

Device	Package	Shipping
MMDT3904	SOT-363-6L	3000/Tape&Reel