

MMDT3904 Dual Transistor(NPN+NPN)

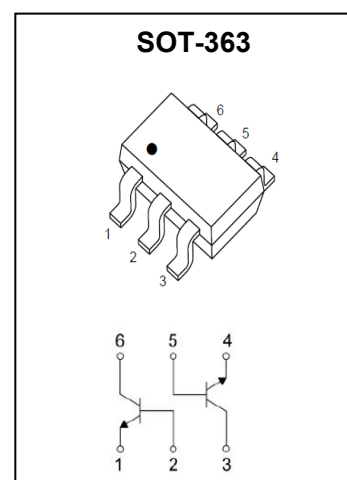
Feature

- Epitaxial planar die construction
- Low power amplification and switching

Marking: K6N

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

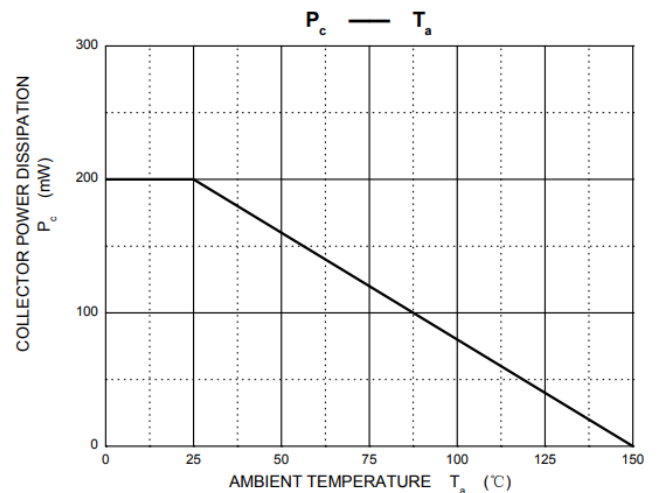
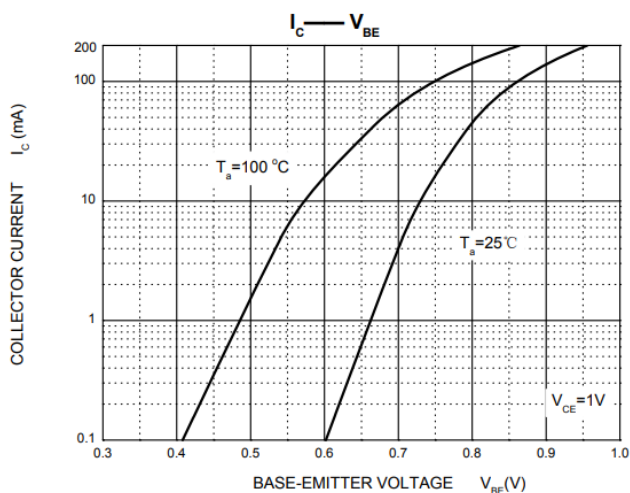
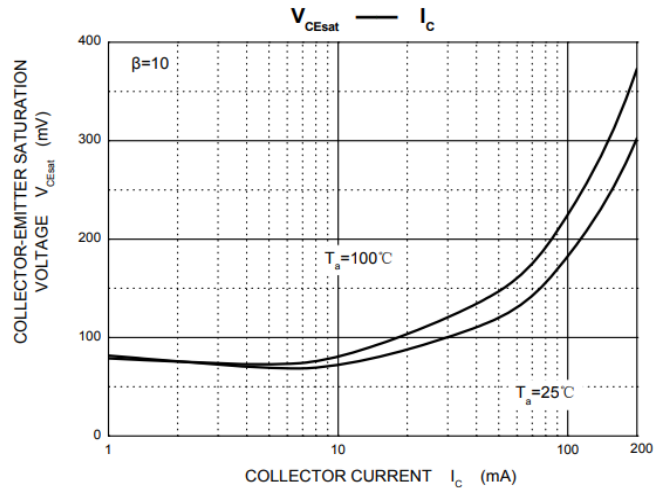
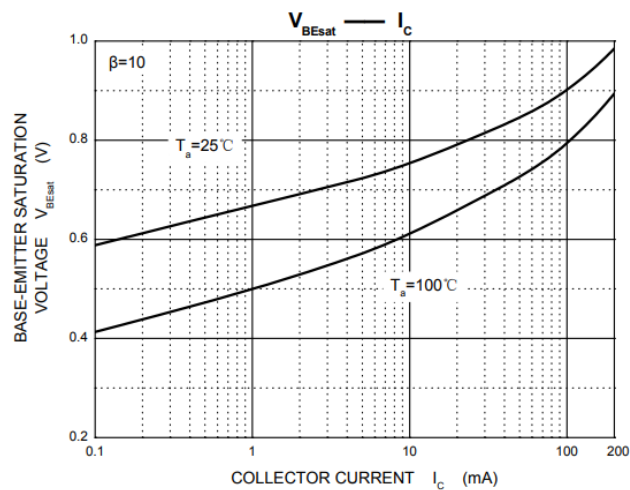
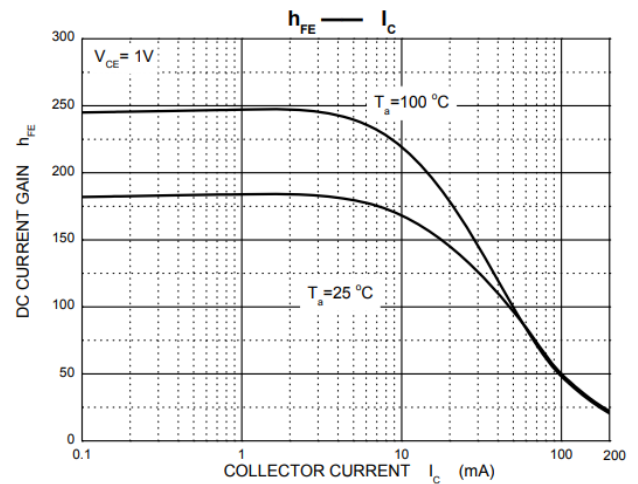
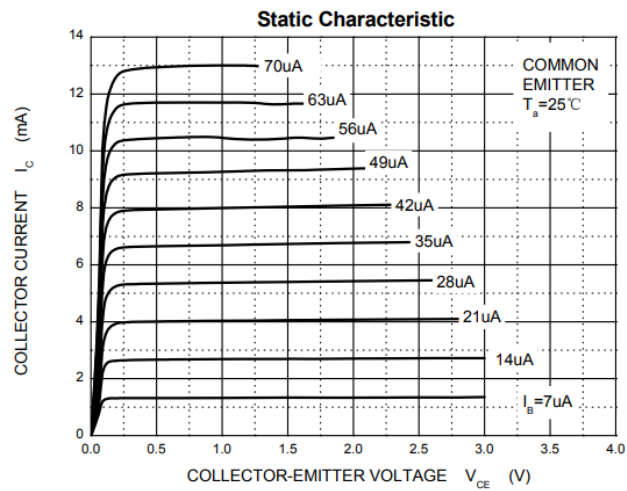
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CE0}	40	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current -Continuous	I_C	0.2	A
Power Dissipation	P_d	0.2	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$

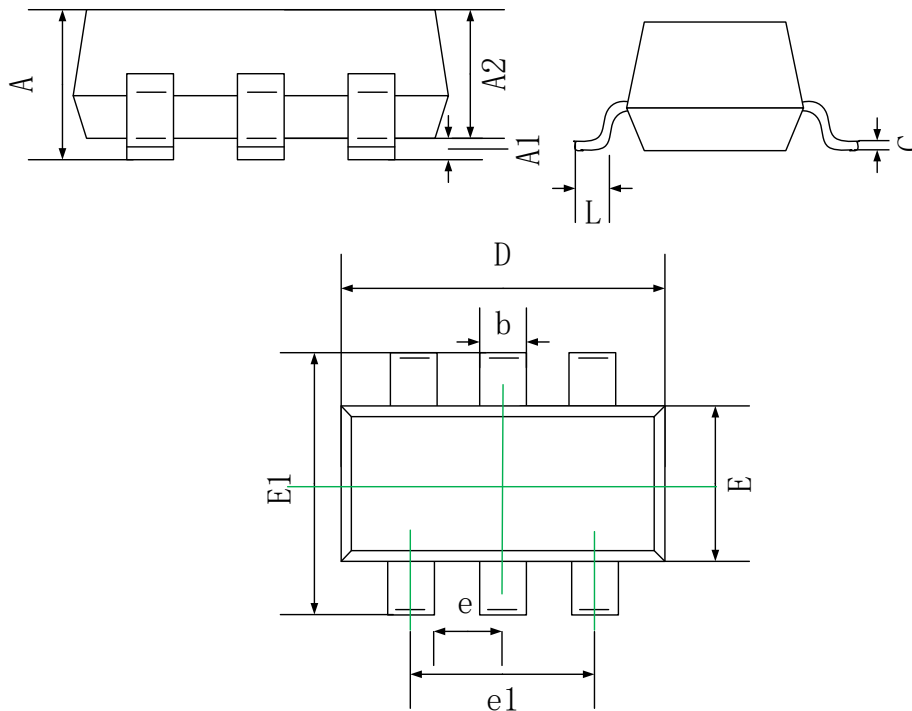


ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	60		V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	40		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	5		V
Collector Cut-Off Current	I_{CEX}	$V_{CE}=30\text{V}, V_{BE(off)}=3\text{V}$		50	nA
Base Cut-Off Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0\text{V}$		50	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$		50	nA
DC Current Gain	h_{FE}	$V_{CE}=1\text{V}, I_C=0.1\text{mA}$	40		
		$V_{CE}=1\text{V}, I_C=1\text{mA}$	70		
		$V_{CE}=1\text{V}, I_C=10\text{mA}$	100	300	
		$V_{CE}=1\text{V}, I_C=50\text{mA}$	60		
		$V_{CE}=1\text{V}, I_C=100\text{mA}$	30		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$		0.2	V
		$I_C=50\text{mA}, I_B=5\text{mA}$		0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$	0.65	0.85	V
		$I_C=50\text{mA}, I_B=5\text{mA}$		0.95	V
Transition Frequency	f_T	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	300		MHZ
Collector Output Capacitance	C_{ob}	$V_{CB}=5\text{V}, I_E=0, f=1\text{MHz}$		4	pF
Noise Figure	NF	$V_{CE}=5\text{V}, I_C=0.1\text{mA}, f=1\text{kHz}, R_S=1\text{K}\Omega$		5	dB

Typical Characteristics



SOT-363 Package Information


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.10
A1	0.00	0.10
A2	0.90	1.00
b	0.15	0.35
c	0.10	0.15
D	2.00	2.20
E	1.15	1.35
E1	2.15	2.40
e	0.65 REF.	
e1	1.20	1.40
L	0.525 REF.	
L1	0.26	0.46

Attention:

- GreenPower Electronics reserves the right to improve product design function and reliability without notice.
- Any and all semiconductor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.
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