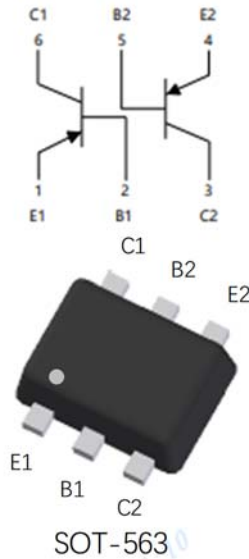


Dual PNP Small Signal Transistor



Features

- Moisture sensitivity level 1
- Halogen free and RoHS compliant
- Surface mount package ideally suited for automatic Insertion

Application

- Signal amplification
- Switching circuit

Mechanical data

- **Package:** SOT-563
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

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

Item	Symbol	Unit	Conditions	Value
Device marking code				KAU
Collector-base voltage	V _{CB0}	V	I _C =-10μA, I _E =0	-60
Collector-emitter voltage	V _{CE0}	V	I _C =-10mA, I _B =0	-60
Emitter-base voltage	V _{EB0}	V	I _E =-10μA, I _C =0	-5
Collector current	I _C	mA		-600
Power dissipation	P _D	mW		150
Junction temperature	T _J	°C		-55 to +150
Storage temperature	T _{STG}	°C		-55 to +150



MMDT2907V

RoHS
COMPLIANT

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	V _{(BR)CBO}	V	I _C =-10μA, I _E =0	-60		
Collector-emitter breakdown voltage	V _{(BR)CEO}	V	I _C =-10mA, I _B =0	-60		
Emitter-base breakdown voltage	V _{(BR)EBO}	V	I _E =-10μA, I _C =0	-5		
Collector-base cut-off current	I _{CBO}	nA	V _{CB} =-50V, I _B =0			-10
Collector cut-off current	I _{CEX}	nA	V _{CE} =-30V, I _{BE} =-0.5V			-50
Emitter-base cutoff current	I _{EBO}	nA	V _{EB} =-5V, I _C =0			-10
DC current gain	h _{FE1}		V _{CE} =-10V, I _C =-0.1mA	75		
	h _{FE2}		V _{CE} =-10V, I _C =-1mA	100		
	h _{FE3}		V _{CE} =-10V, I _C =-10mA	100		
	h _{FE4}		V _{CE} =-10V, I _C =-150mA	100		300
	h _{FE5}		V _{CE} =-10V, I _C =-500mA	50		
Collector-emitter saturation voltage	V _{CE(sat)1}	V	I _C =-150mA, I _B =-15mA			-0.4
	V _{CE(sat)2}	V	I _C =-500mA, I _B =-50mA			-1.6
Base-emitter saturation voltage	V _{BE(sat)1}	V	I _C =-150mA, I _B =-15mA			-1.3
	V _{BE(sat)2}	V	I _C =-500mA, I _B =-50mA			-2.6
Transition frequency	f _T	MHz	V _{CB} =-50V, I _C =50mA, f=100MHz	200		
Collector-base output capacitance	Cob	pF	V _{CB} =-10V, I _E =0, f=1MHz			8

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	833
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	666

Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4mm*25.4mm copper pad areas



■ Characteristics

Fig 1: Static Characteristics

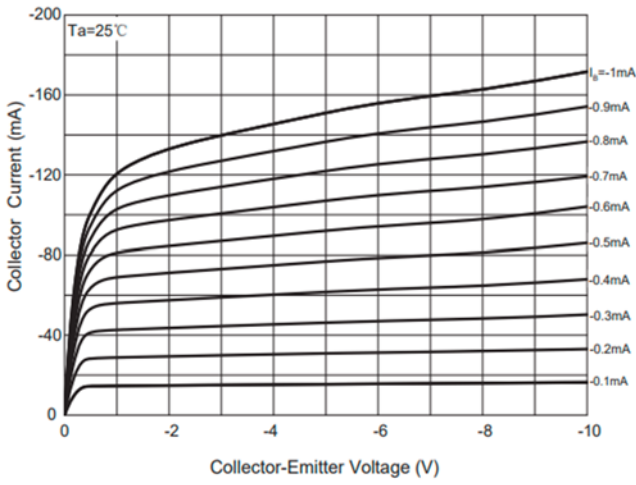


Fig 2: DC Current Gain Characteristics

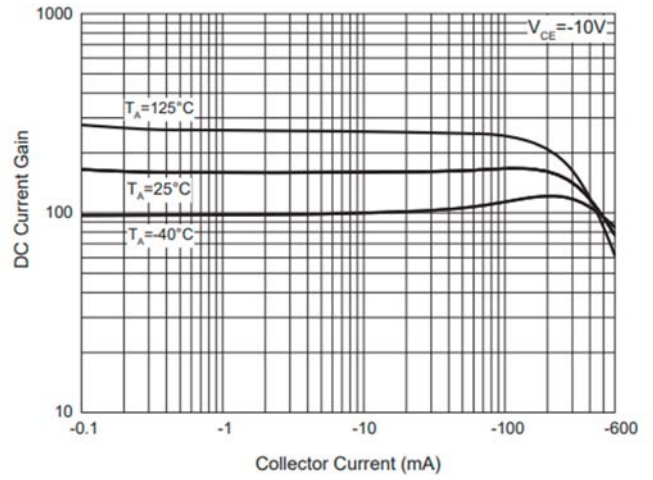


Fig 3: Collector-Emitter Saturation Voltage

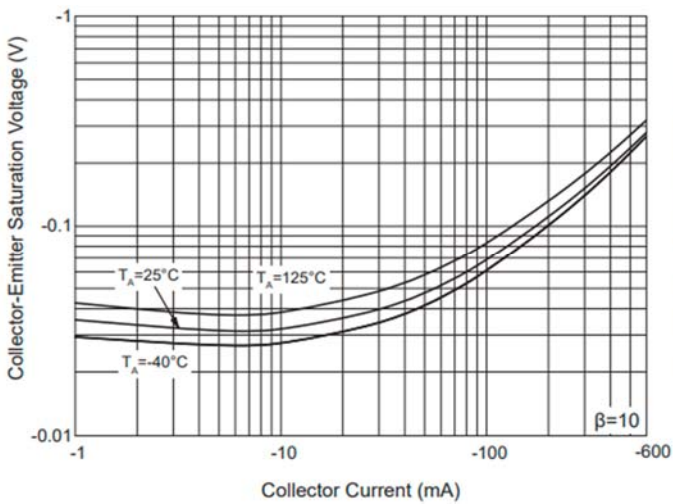


Fig 4: Base-Emitter Saturation Voltage

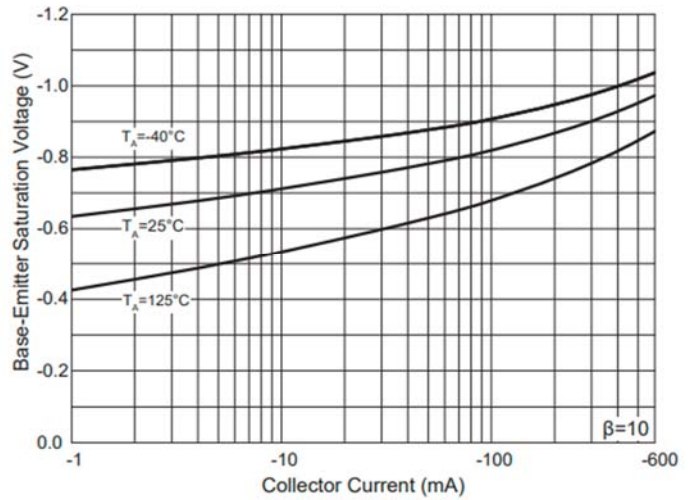


Fig 5: Base-Emitter on Voltage

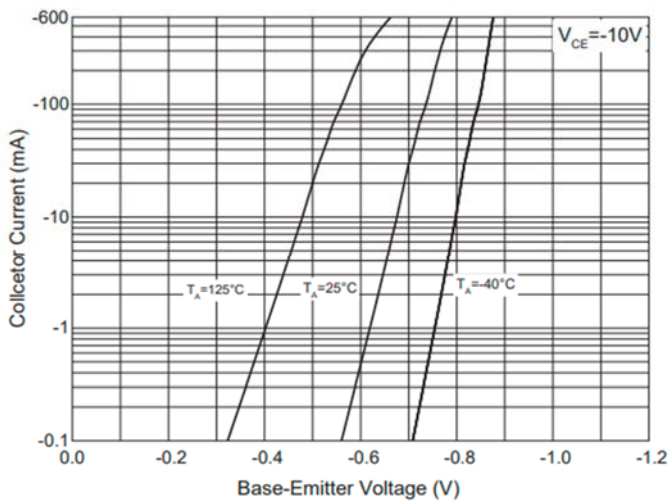
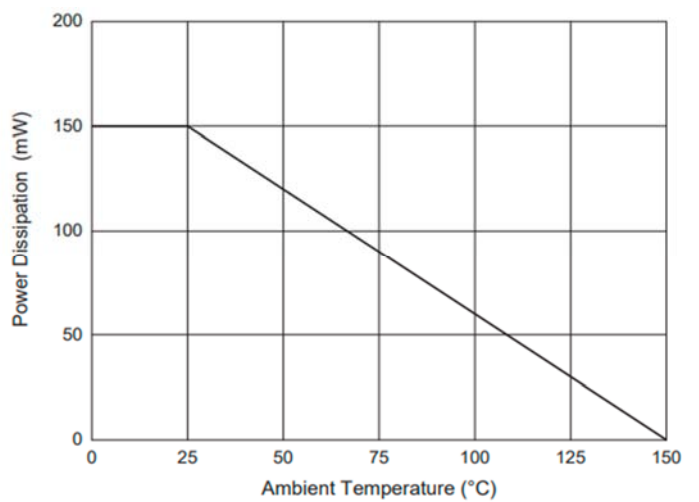


Fig 6: P_D - T_a Curve





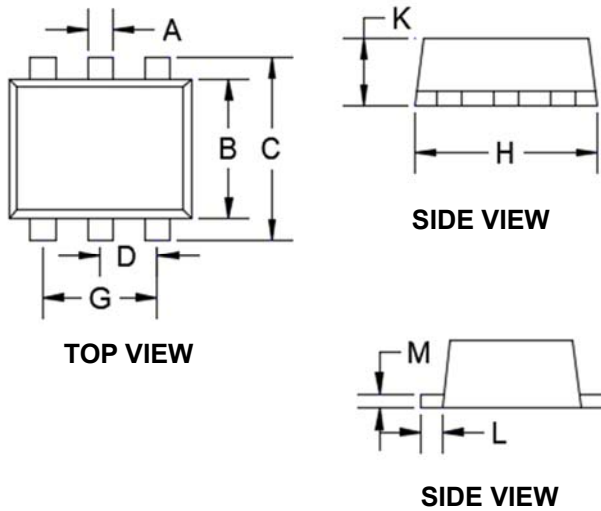
MMDT2907V

RoHS
COMPLIANT

Ordering Information

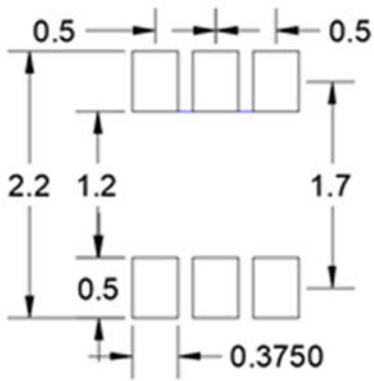
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
MMDT2907V	F2	Approximate 0.0035	3000	30000	120000	7" reel

Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.006	0.011	0.150	0.300
B	0.043	0.051	1.100	1.300
C	0.059	0.067	1.500	1.700
D	0.016	0.024	0.400	0.600
G	0.035	0.043	0.900	1.100
H	0.059	0.067	1.500	1.700
K	0.021	0.026	0.550	0.650
L	0.004	0.011	0.100	0.300
M	0.004	0.007	0.100	0.180

Suggested Pad Layout



UNIT: mm



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function, or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.