

Dual NPN+PNP Small Signal Transistor



Features

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

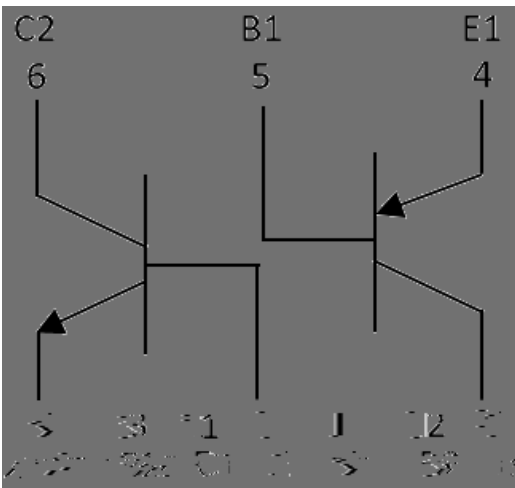
Mechanical Data

Package: SOT-363

Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102

Marking: K13

Equivalent circuit



Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMDT4413	F2	Approximate 0.009g	3000	30000	120000	7" reel



MMDT4413

TR1 PNP Pin3 4 5 Maximum Ratings (Ta=25 Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V	$I_C=-100\text{ A}, I_E=0$	-40
Collector-Emitter Voltage	V_{CEO}	V	$I_C=-1\text{mA}, I_B=0$	-40
Emitter-Base Voltage	V_{EBO}	V	$I_E=-100\text{ A}, I_C=0$	-5
Collector Current -Continuous	I_C	mA		-200
Total Device Dissipation	P_C	mW		200
Junction Temperature	T_J			150
Storage Temperature	T_{STG}			-55 to +150

TR1 PNP Pin3 4 5 Electrical Characteristics (Ta=25 unless otherwise specified)

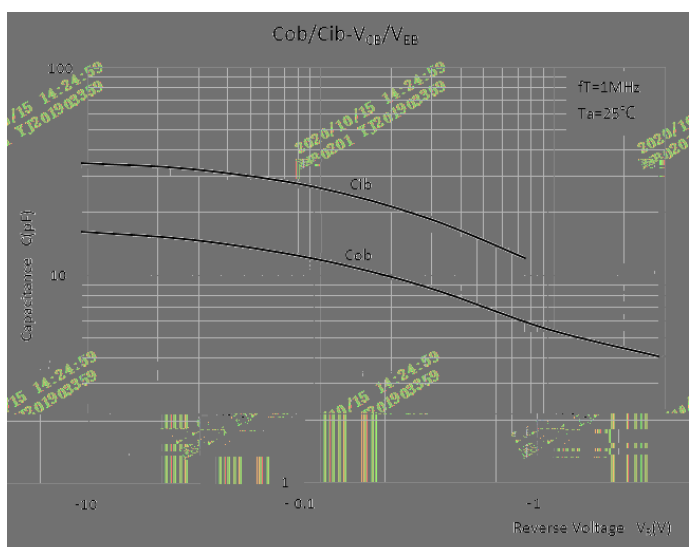
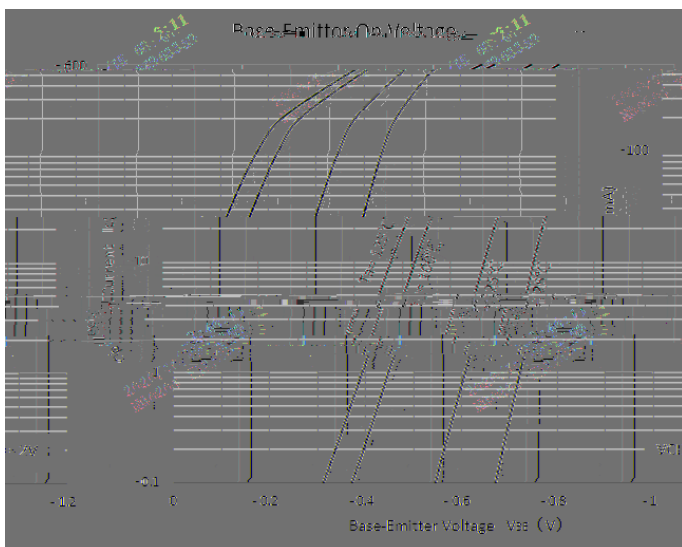
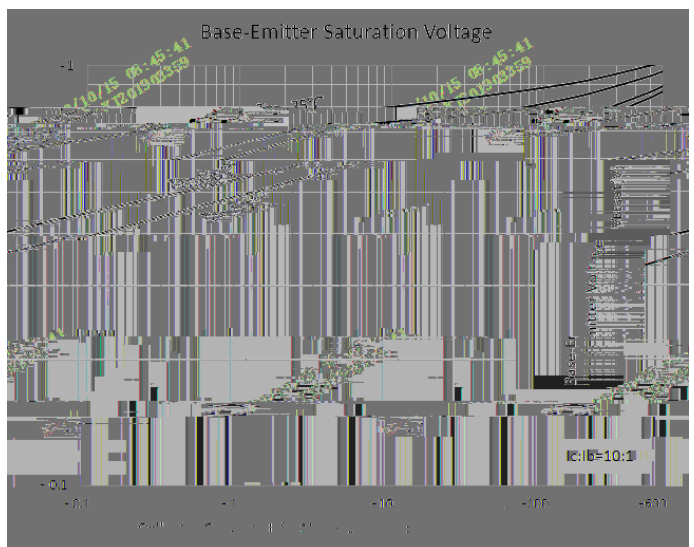
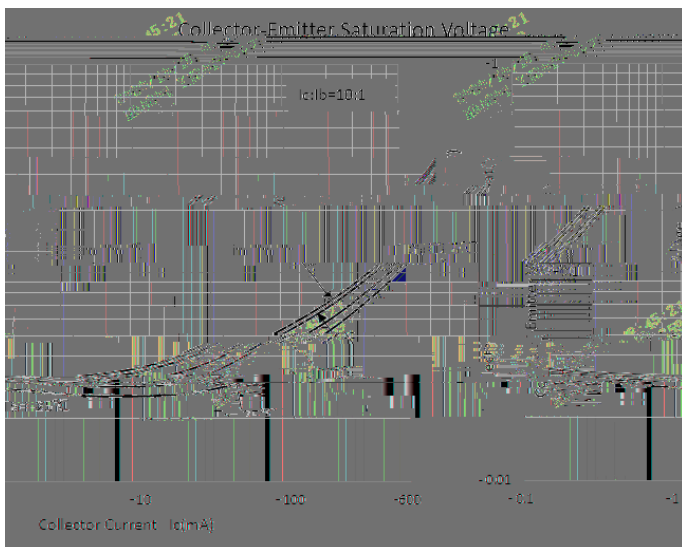
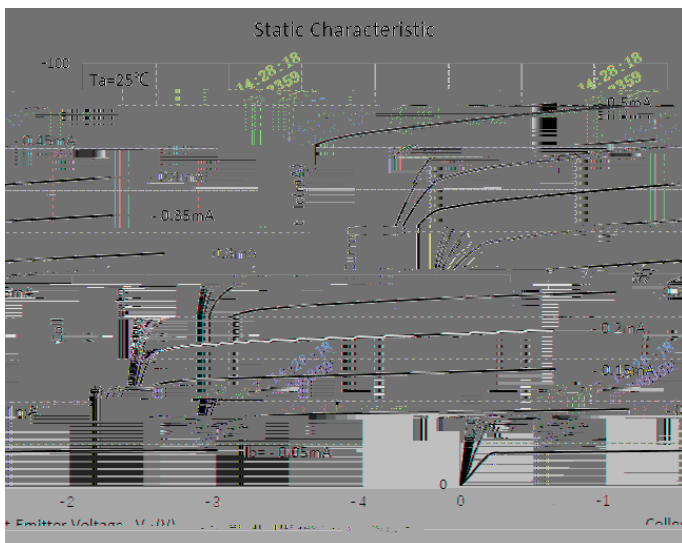
Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-base breakdown voltage	V_{CBO}	V	$I_C=-100\text{ A}, I_E=0$	-40		
Collector-emitter breakdown voltage	V_{CEO}	V	$I_C=-1\text{mA}, I_B=0$	-40		
Emitter-base breakdown voltage	V_{EBO}	V	$I_E=-100\text{ A}, I_C=0$	-5		
Collector cut-off current	I_{CBO}	nA	$V_{CB}=-50\text{V}, I_E=0$			-100
Emmitter cut-off current	I_{EBO}	nA	$V_{EB}=-5\text{V}, I_C=0$			-100

h

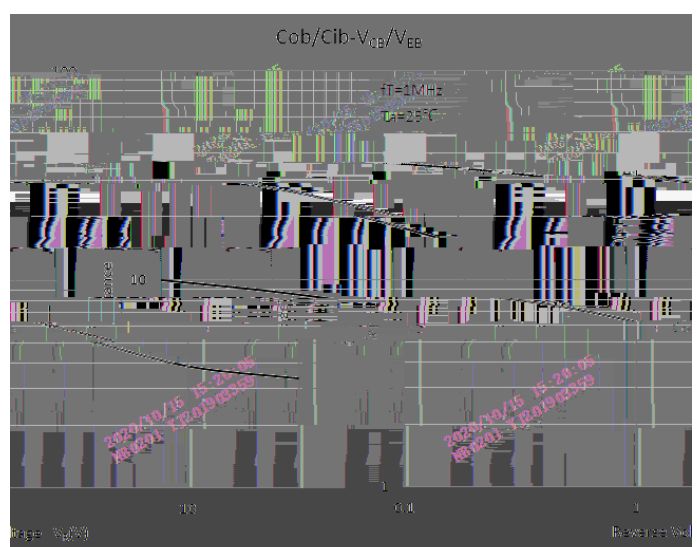
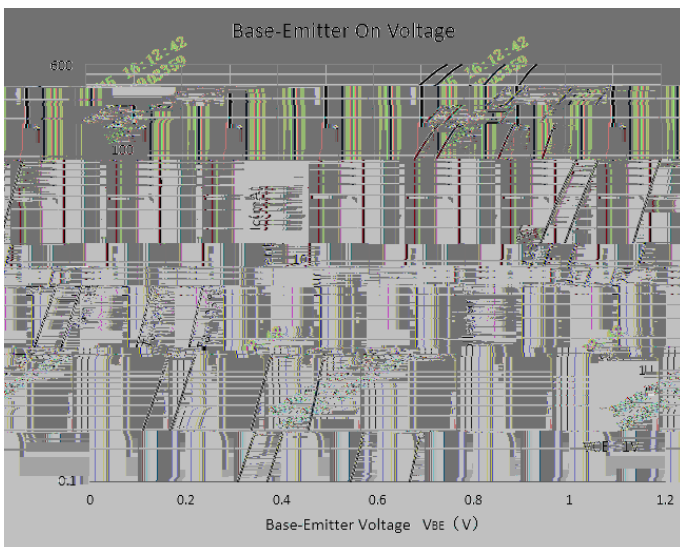
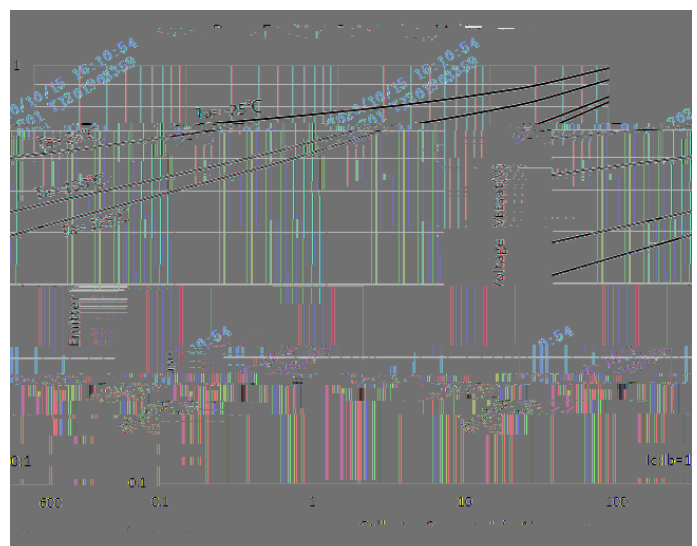
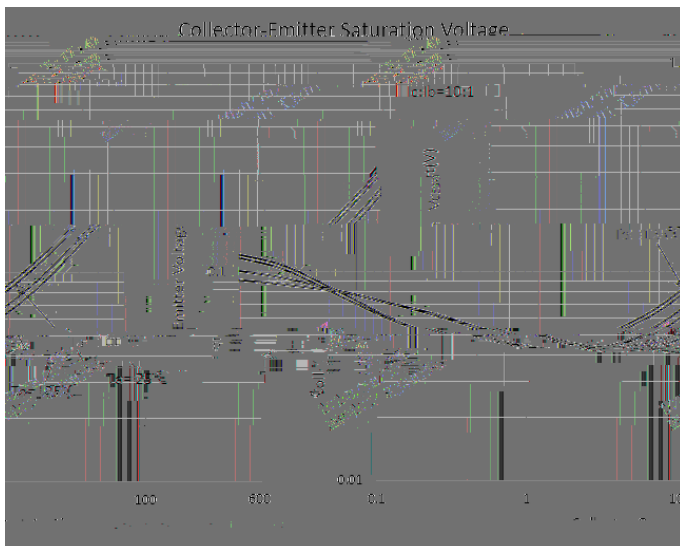
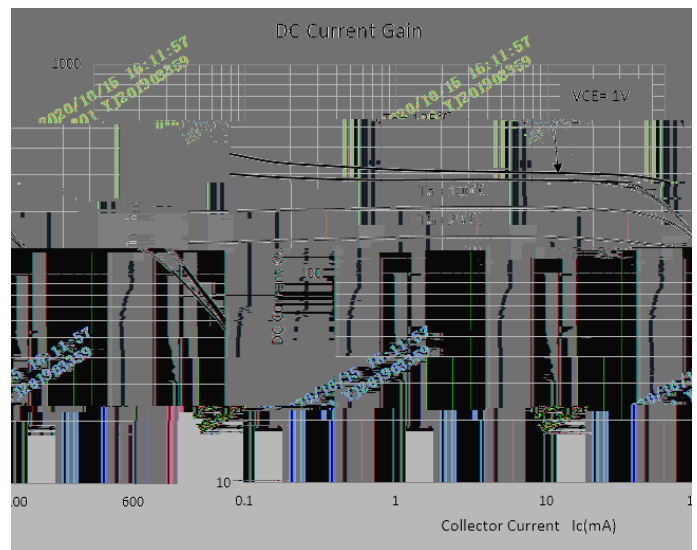
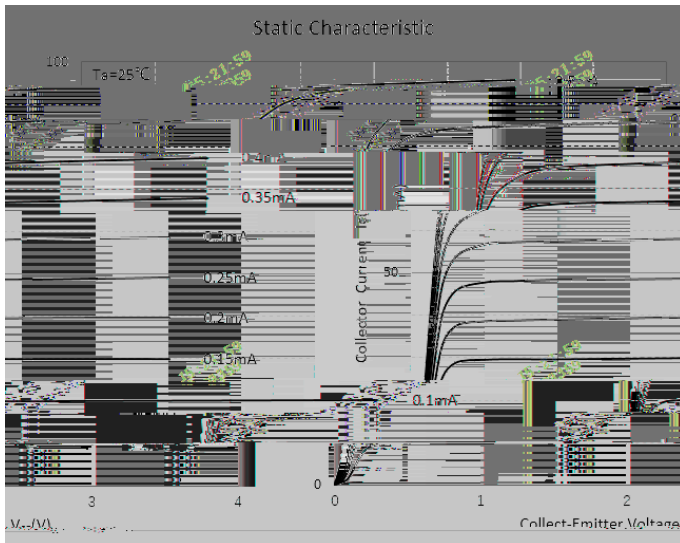
DC current gain



TR1 PNP Pin3 4 5 Characteristics (Typical)



TR2 NPN Pin1 2 6 Characteristics (Typical)





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.