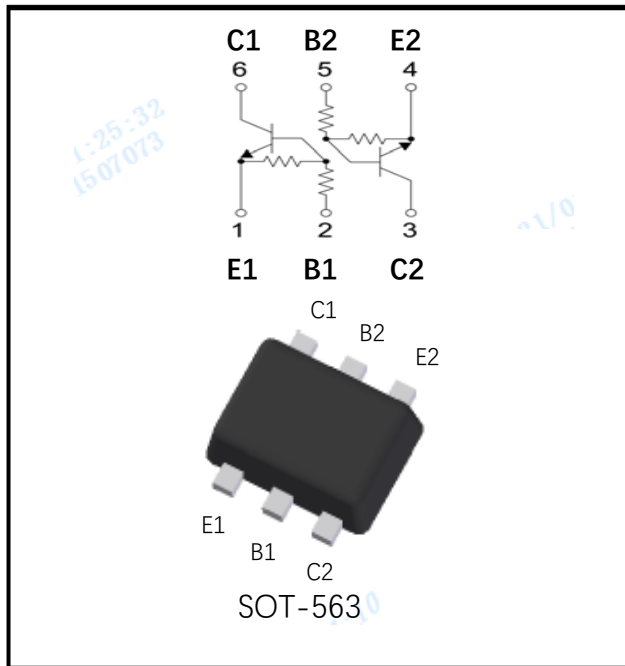


Dual NPN Digital Transistors (Built-in Resistors)



Features

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

Mechanical Data

- **Package:** SOT-563
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** H9
- **Solid point:** E1 positioning point

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

Item	Symbol	Unit	Conditions	Value
Supply Voltage	VCC	V		50
Input Voltage	VIN	V		-6 to +40
Output Current	IO	mA		100
Power Dissipation	PD	mW		150
Junction Temperature	Tj	°C		150
Storage Temperature	TSTG	°C		-55 to +150



EMH9

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

Item	Symbol	Unit	Conditions	Min	TYP	Max
Input voltage	$V_{I(off)}$	V	$V_{CC}=5V, I_C=100\mu A$	0.3		
	$V_{I(on)}$	V	$V_O=0.3V, I_C=1mA$			1.4
Output voltage	$V_{O(on)}$	V	$I_O / I_I = 5mA / 0.25 mA$			0.3
Input current	I_I	mA	$V_I=5V$			0.88
Output current	$I_{O(off)}$	μA	$V_{CC}=50V, V_I=0$			0.5
DC current gain	G_I		$V_O=5V, I_O=5mA$	68		
Input resistance	R_1	k Ω		7	10	13
Resistance ratio	R_2/R_1			3.7	4.7	5.7
Transition frequency	f_T	MHz	$V_{CE}=10V, I_E=5mA, f=100MHz$		250	

■ Ordering Information (Example)

Preferred P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
EMH9	F2	Approximate 0.0035	3000	30000	120000	7" reel

■ Characteristics (Typical)

Fig. 1 - DC Current Gain Characteristics

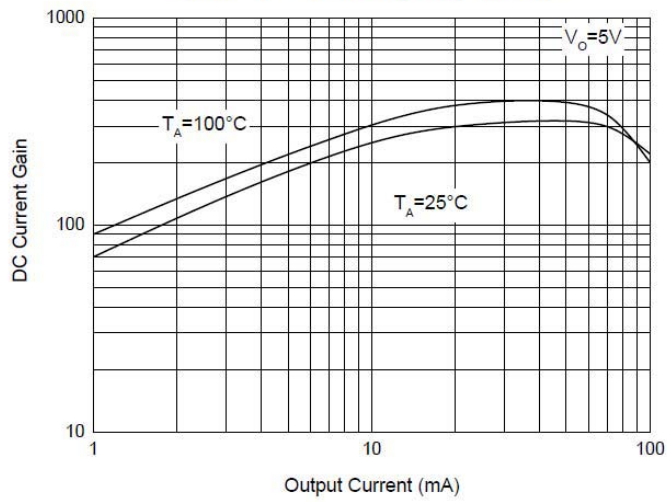


Fig. 2 - Input Voltage (on) Characteristics

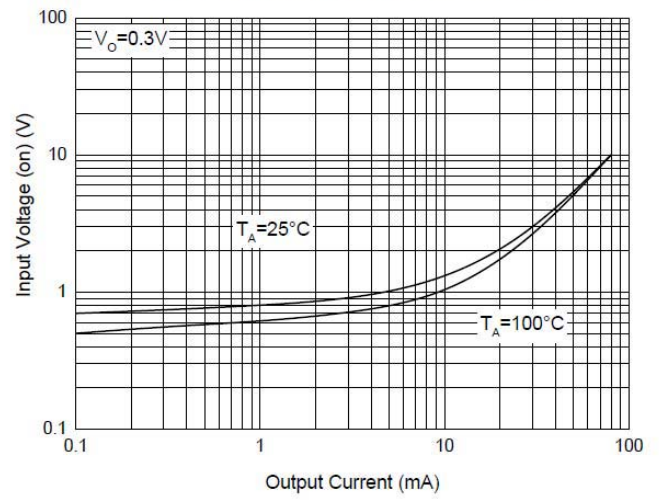


Fig. 3 - Input Voltage (off) Characteristics

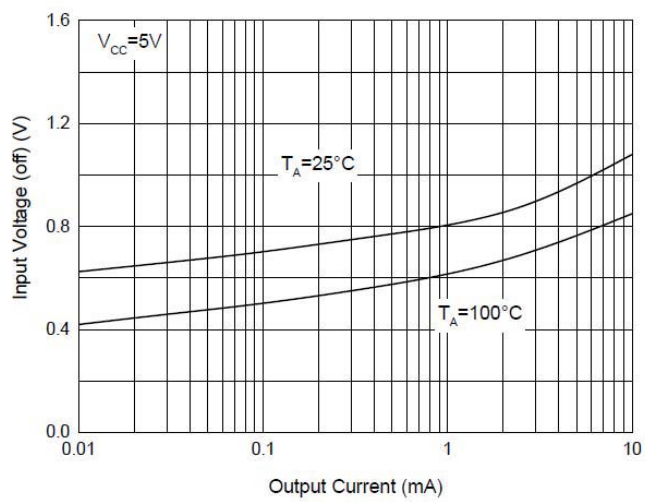
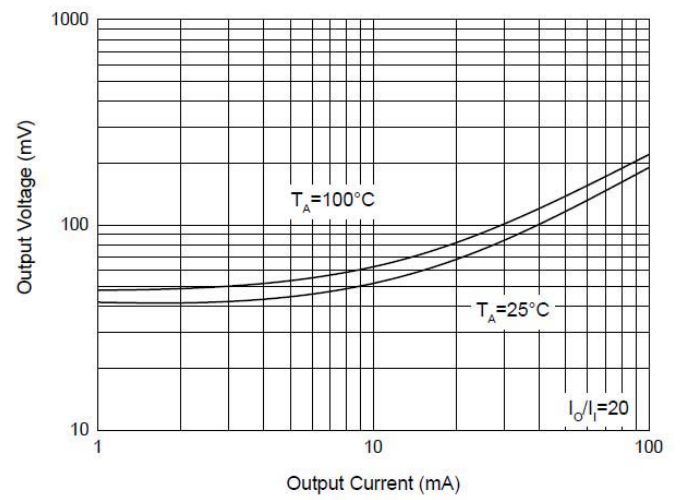
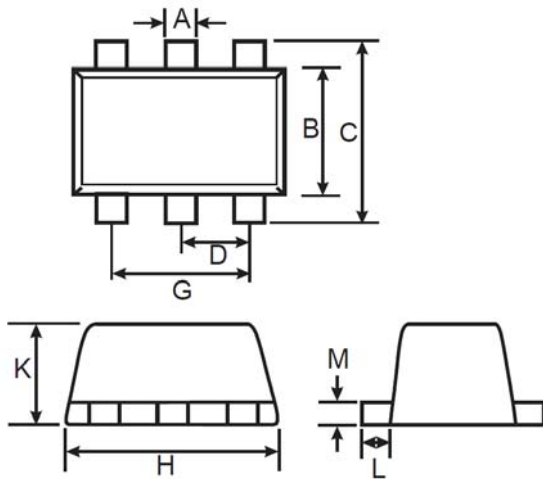


Fig. 4 - Output Voltage Characteristics

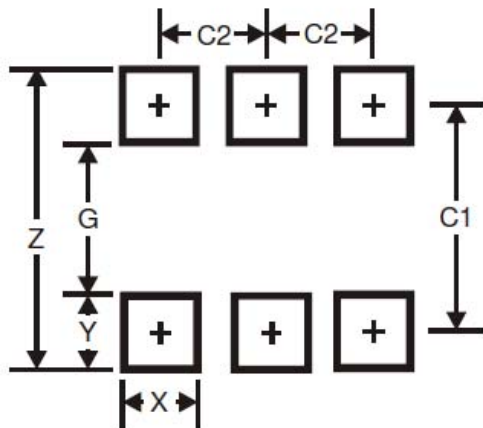


■ SOT-563 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.006	0.011	0.15	0.30
B	0.043	0.051	1.10	1.30
C	0.059	0.067	1.50	1.70
D	0.016	0.024	0.40	0.60
G	0.035	0.043	0.90	1.10
H	0.059	0.067	1.50	1.70
K	0.021	0.026	0.55	0.65
L	0.004	0.011	0.10	0.30
M	0.004	0.007	0.10	0.18

■ SOT-563 Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.2
G	1.2
X	0.375
Y	0.5
C1	1.7
C2	0.5



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