Features

- Mounting Possible With SOT-563 Automatic Mounting Machines
- Transistor Elements Independent, Eliminating Interference
- Design For Saving Space and Cost
- Halogen Free. “Green” Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant.See Ordering Information)

Dual NPN Digital Transistor

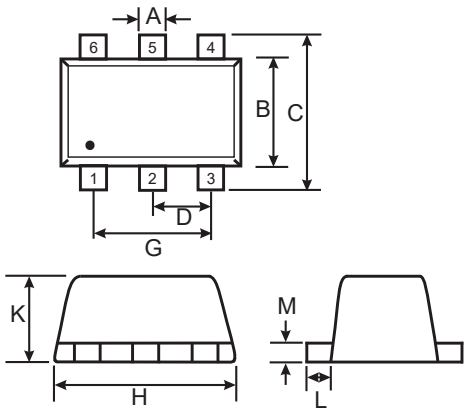
Maximum Ratings @ 25°C Unless Otherwise Specified

- Thermal Resistance: 833℃/W Junction to Ambient

Parameter	Symbol	Value	Unit
Collector-emitter Voltage	V_{CEO}	50	V
Output Current	I_C	100	mA
Power Dissipation	P_D	150	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55~150	°C

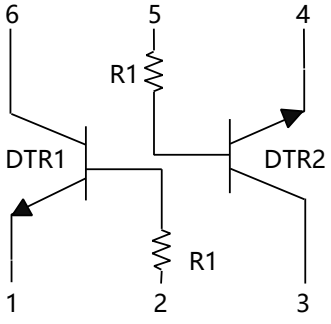
Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

SOT-563

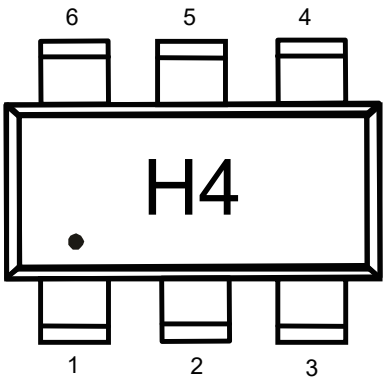


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.011	0.15	0.30	
B	0.043	0.051	1.10	1.30	
C	0.059	0.067	1.50	1.70	
D	0.020		0.50		TYP.
G	0.035	0.043	0.90	1.10	
H	0.059	0.067	1.50	1.70	
K	0.022	0.026	0.55	0.65	
L	0.004	0.011	0.10	0.30	
M	0.004	0.007	0.10	0.18	

Internal Structure



Device Marking:



Electrical Characteristics @ 25°C Unless Otherwise Specified

<For DTR1 and DTR2 in Common>

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Collector-base Voltage	V_{CBO}	50	---	---	V	I_C=50μA
Collector-emitter Voltage	V_{CEO}	50	---	---	V	I_C=1mA
Emitter-base Voltage	V_{EBO}	5	---	---	V	I_E=50μA
Collector cut-off current	I_{CBO}	---	---	0.5	μA	V_{CB}=50V
Emitter cut-off current	I_{EBO}	---	---	0.5	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	---	---	0.3	V	I_C=10mA, I_B=1mA
DC Current Gain	G_I	100	---	600		V_{CE}=5V, I_C=1mA
Input Resistance	R_1	7	10	13	KΩ	
Transition Frequency	f_T	---	250	---	MHz	V_{CE}=10V, I_E=5mA, f=100MHz

Curve Characteristics

<For DTR1 and DTR2 in Common>

Fig. 1 - Static Characteristics

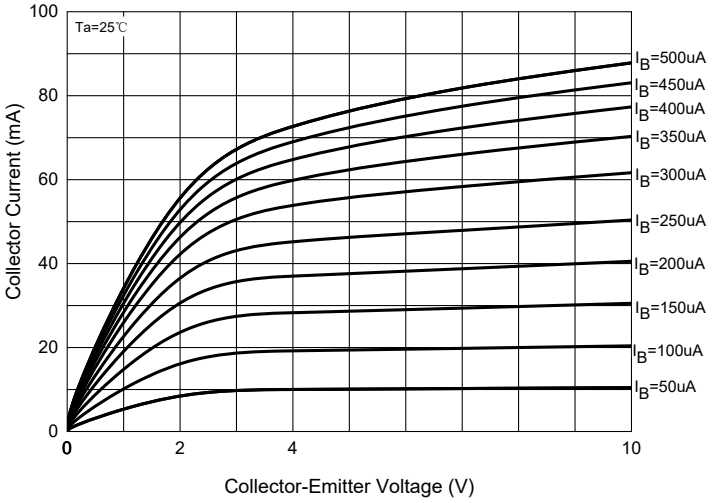


Fig. 2 - DC Current Gain Characteristics

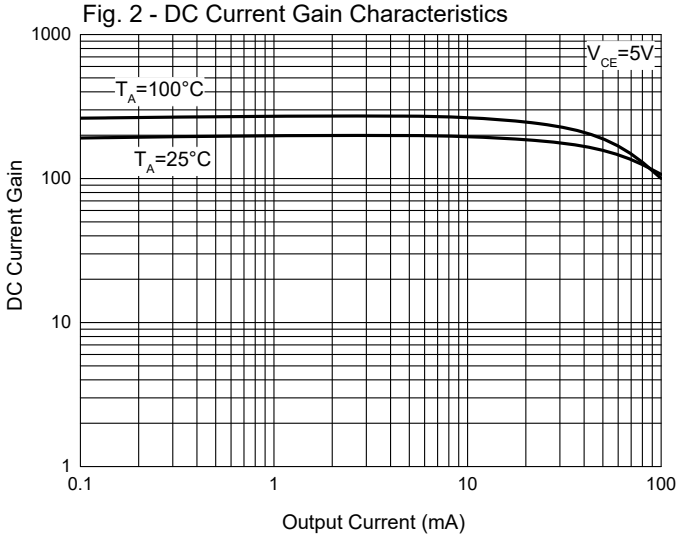


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

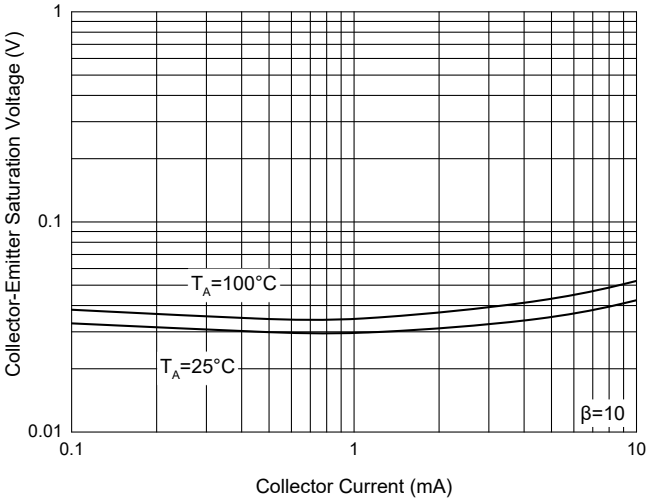


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

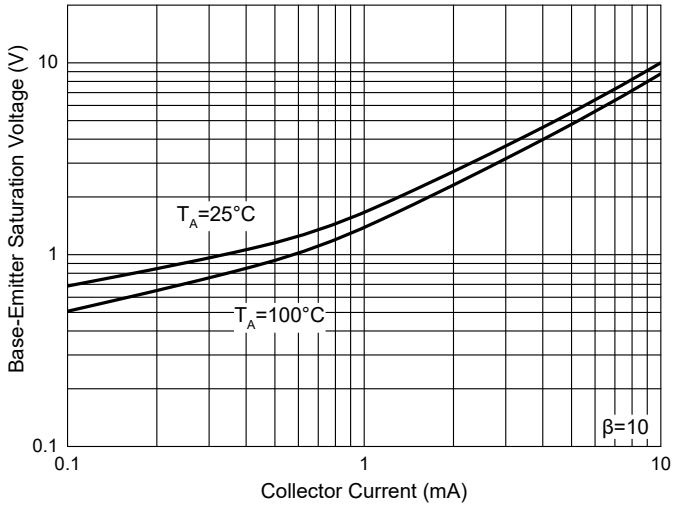


Fig. 5 - Base-Emitter Voltage Characteristics

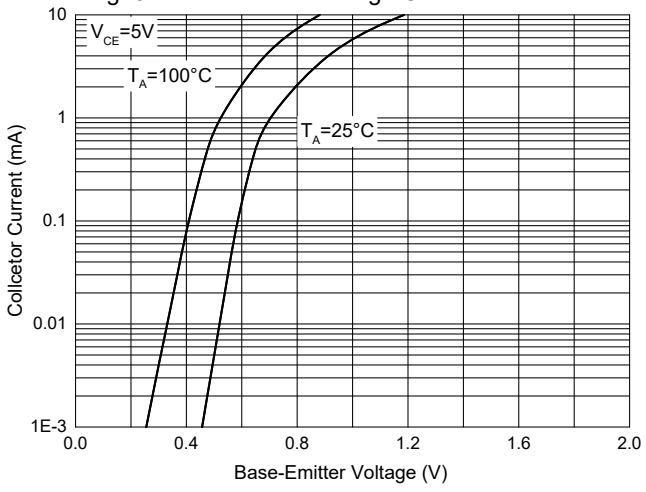
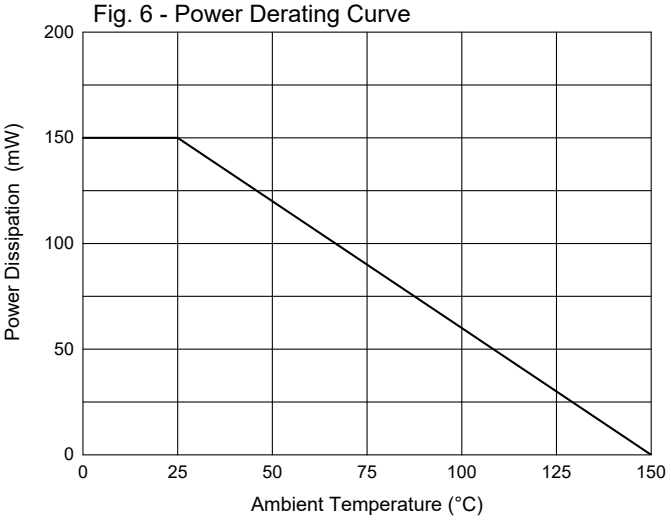


Fig. 6 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel