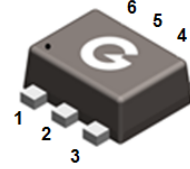
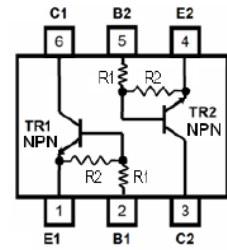


Features

- Two DTC143Z chip in SOT-563 Package
- Transistor elements are independent, eliminating interference
- Mounting cost and area can be cut in half
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

Mechanical Data

- Case: SOT-563
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-563

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TEMH25	SOT-563	3000 pcs / Tape & Reel	H25

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Symbol	Parameter	Value		Unit
		Tr1	Tr2	
V _{CC}	Supply Voltage	50	50	V
V _{IN}	Input Voltage	-5 to +30	-5 to +30	V
I _O	Output Current	100	100	mA
I _{C(MAX.)}	Collector Current	100	100	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	150	mW
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Electrical Characteristics-TR1 and TR2 (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input Voltage	$V_{I(off)}$	$V_{CC} = 5V, I_O = 100\mu A$	0.5	-	-	V
	$V_{I(on)}$	$V_O = 0.3V, I_O = 5mA$	-	-	1.3	V
Output Voltage	$V_{O(on)}$	$I_O = 5mA, I_I = 0.25mA$	-	0.1	0.3	V
Input Current	I_I	$V_I = 5V$	-	-	1.8	mA
Output Current	$I_{O(off)}$	$V_{CC} = 50V, V_I = 0V$	-	-	0.5	μA
DC Current Gain	G_I	$V_O = 5V, I_O = 10mA$	80	-	-	-
Input Resistor	R_I		3.29	4.7	6.11	$k\Omega$
Resistance Ratio	$R2/R1$		8	10	12	
Gain-Bandwidth Product	f_T	$V_{CE} = 10V, I_E = -5mA,$ $f = 100MHz$	-	250	-	MHz

Ratings and Characteristics Curves-TR1 and TR2 (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

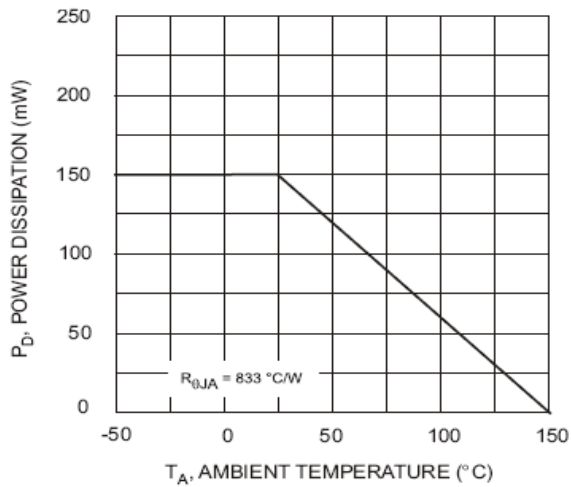


Fig. 1 Derating Curve

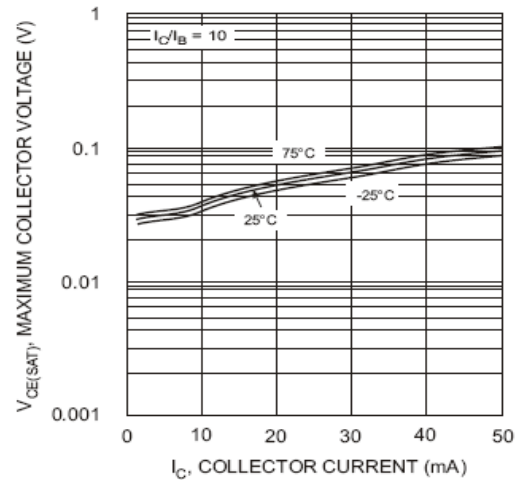


Fig. 2 $V_{CE(SAT)}$ vs. I_C

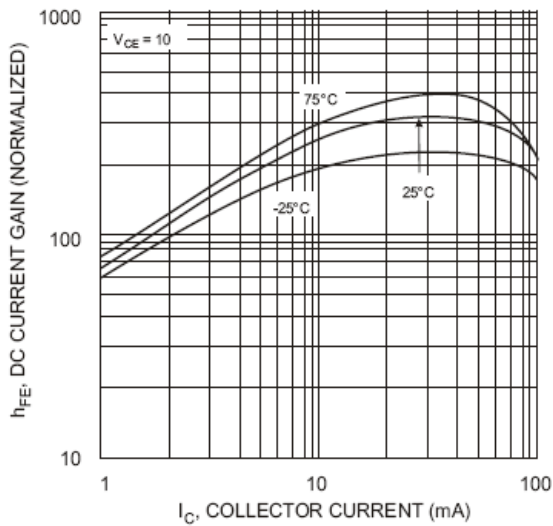


Fig. 3 DC Current Gain

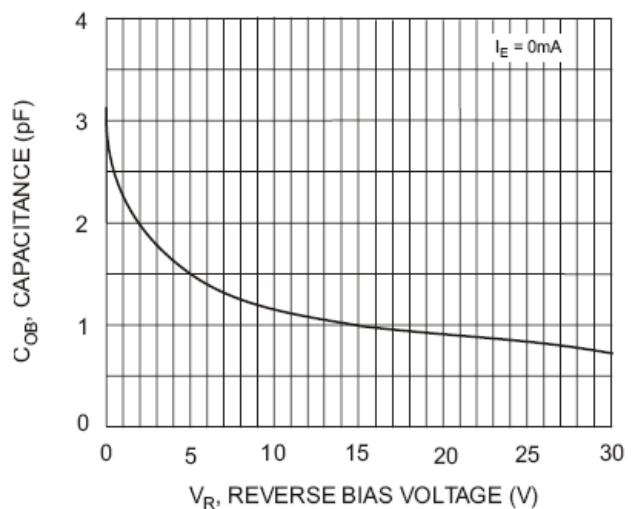


Fig. 4 Output Capacitance

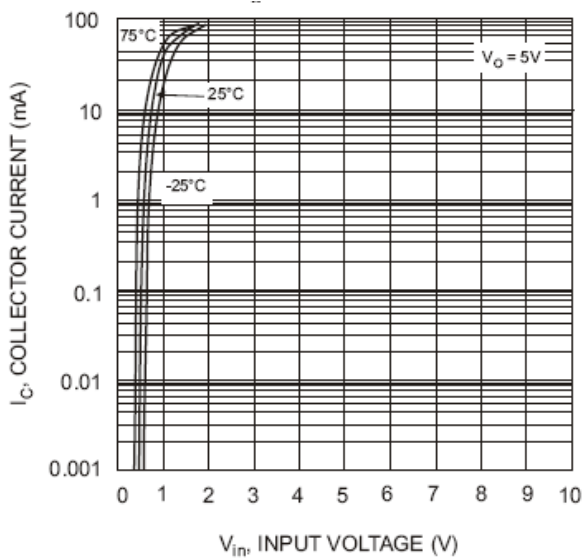


Fig. 5 Collector Current Vs. Input Voltage

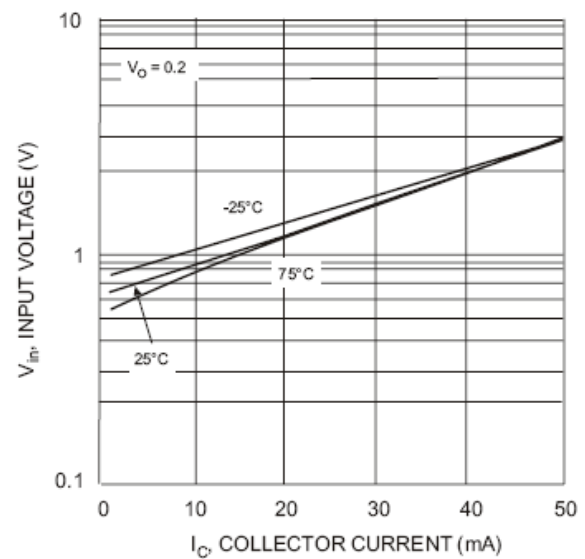
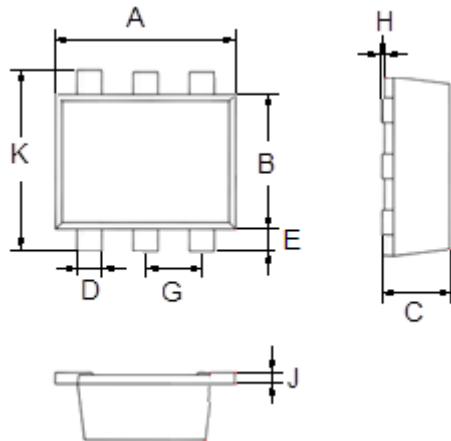


Fig. 6 Input Voltage vs. Collector Current

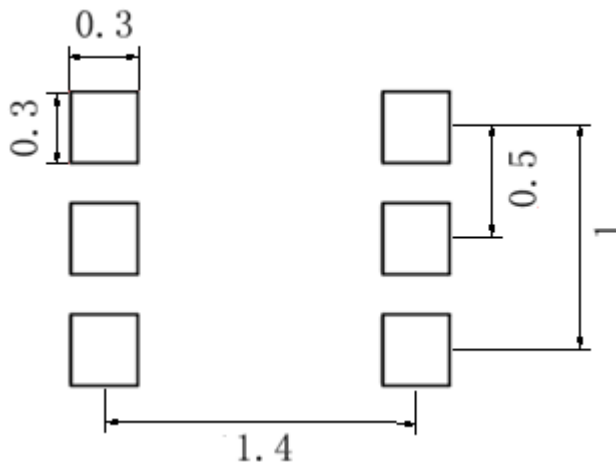
Package Outline Dimensions (Unit: mm)



SOT-563		
Dimension	Min.	Max.
A	1.500	1.700
B	1.100	1.300
C	0.525	0.600
D	0.170	0.270
E	0.100	0.300
G	0.450	0.550
H	0.000	0.050
J	0.090	0.160
K	1.500	1.700

Package Outline Dimensions (Unit: mm)

SOT-563



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