

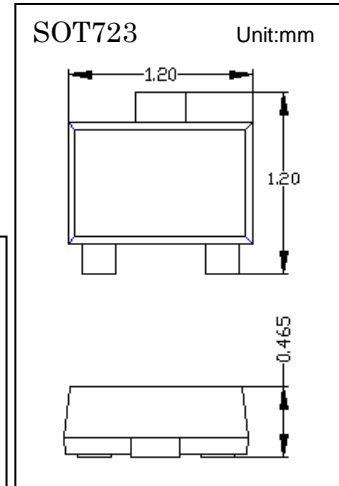
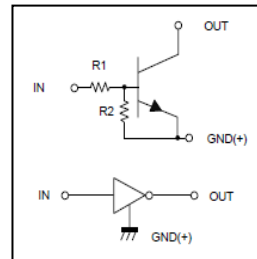
DATA SHEET

DTC143ZM

- ◇ Epitaxial planar die construction
- ◇ Operating and Storage Junction Temperatures: -55°C to 150°C
- ◇ RoHS compliant / Green EMC
- ◇ Built-In Biasing Resistors

Device	Marking
DTC143ZM	E23

Equivalent Circuit



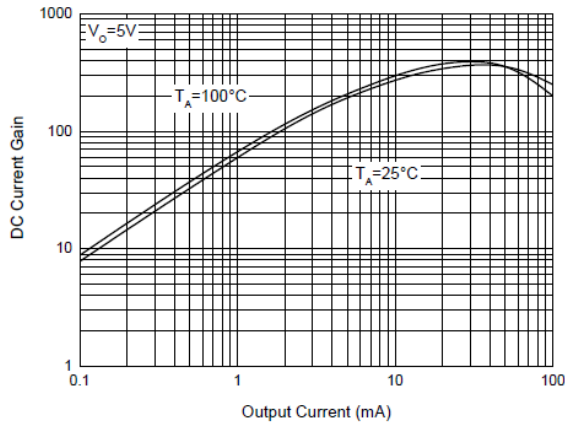
Maximum Ratings ($T_a = 25^{\circ}\text{C}$)

Symbol	Parameter	Value	Units
V_{CC}	Supply Voltage	50	V
V_{IN}	Input Voltage	$-5 \sim +30$	V
I_o	Output Current	100	mA
P_D	Power Dissipation	100	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	$-55 \sim +150$	$^{\circ}\text{C}$

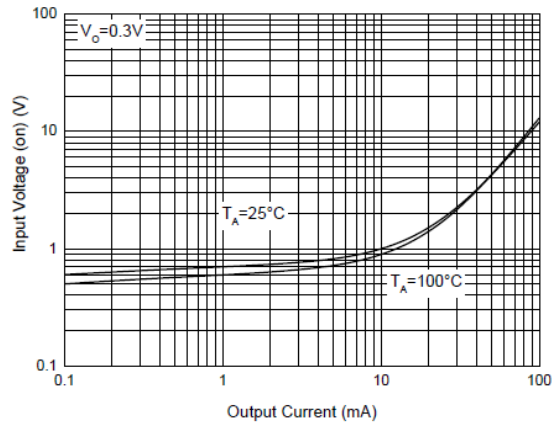
Electrical Characteristics ($T_a = 25^{\circ}\text{C}$)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$V_{I(off)}$	Input Voltage	$V_{CC}=5V, I_o=100\mu A$	0.5			V
$V_{I(on)}$		$V_o=0.3V, I_o=5mA$			1.3	V
$V_{O(on)}$	Output Voltage	$I_o/I_i=5mA/0.25mA$			0.3	V
I_i	Input Current	$V_i=5V$			1.8	mA
$I_{O(off)}$	Output Current	$V_{CC}=50V, V_i=0$			0.5	μA
G_i	DC Current Gain	$V_o=5V, I_o=10mA$	80			
R_1	Input Resistance		3.29	4.7	6.11	$k\Omega$
R_2/R_1	Resistance Ratio		8	10	12	
f_T	Transition Frequency	$V_{CE}=10V, I_E=5mA, f=100MHz$		250		MHz

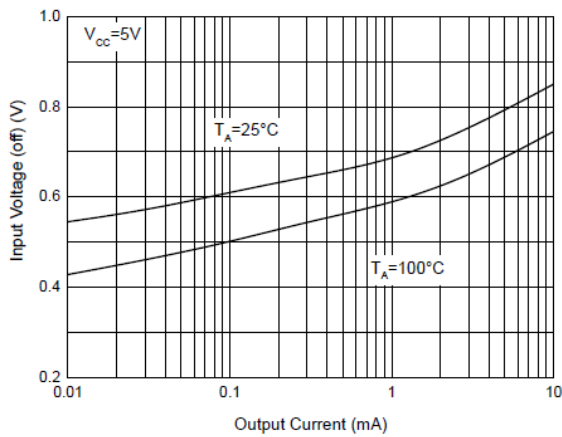
Typical Characteristics



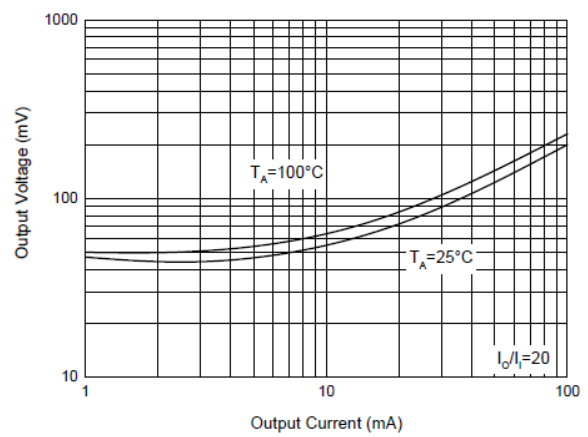
DC Current Gain Characteristics



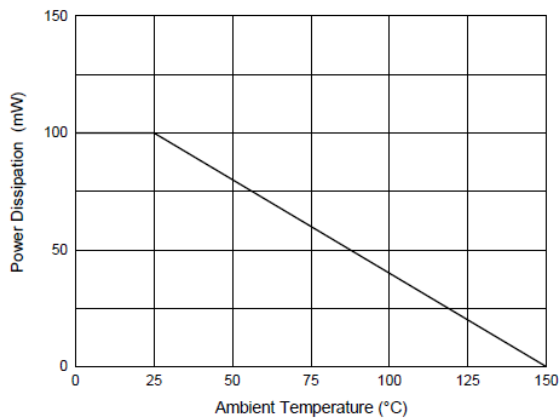
Input Voltage (on) Characteristics



Input Voltage (off) Characteristics



Output Voltage Characteristics



Power Derating Curve

Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
DTC143ZM	SOT723	Tape & Reel 8000pcs /7" Reel	8mm	4mm	Conductive	

Package Dimensions

