

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Two DTC143Z chips in a package
- 100mA output current capability
- Reduces component count

MARKING

H13

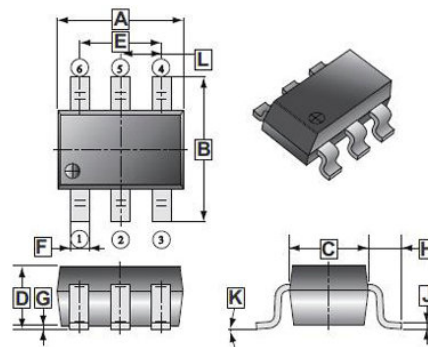
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-363	3K	7 inch

ORDER INFORMATION

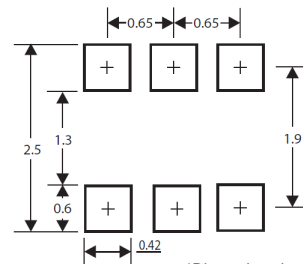
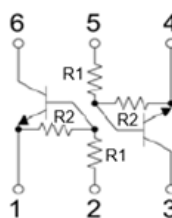
Part Number	Type
UMH13N-C	Lead (Pb)-free and Halogen-free

SOT-363



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.10 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.05	0.25
D	0.70	1.10	K		8°
E	1.30 REF.		L		0.65 TYP.
F	0.10	0.35			

Mounting Pad Layout



*Dimensions in millimeters

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

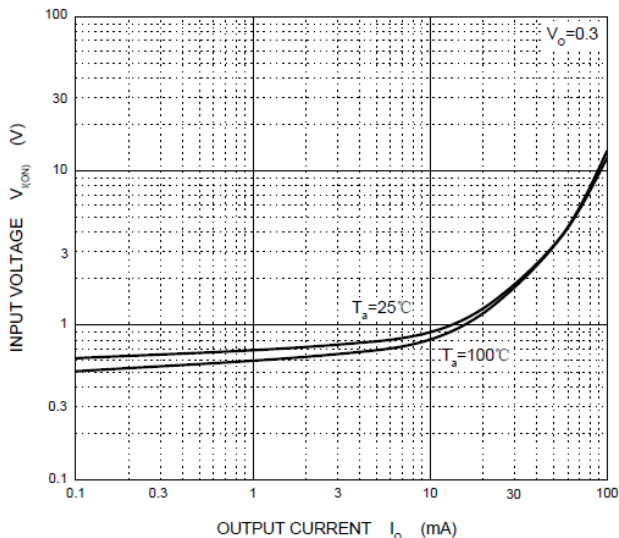
Parameter	Symbol	Value	Unit
Supply Voltage	V _{CC}	50	V
Input Voltage	V _{IN}	-5~30	
Output Current	I _O	100	mA
Power Dissipation	P _D	150	mW
Junction & Storage Temperature Range	T _J , T _{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

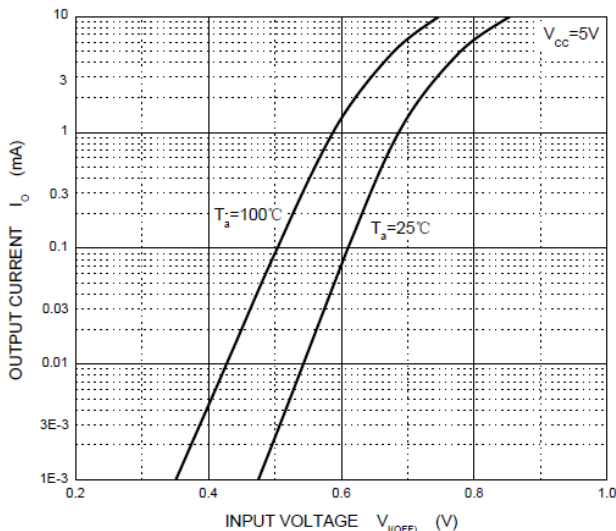
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Input Voltage	V _{I(off)}	0.5	-	-	V	V _{CC} =5V, I _O =100μA
	V _{I(on)}	-	-	1.3		V _O =0.3V, I _O =5mA
Output Voltage	V _{O(on)}	-	-	0.3		I _O =5mA, I _I =0.25mA
Input Current	I _I	-	-	1.8	mA	V _I =5V
Output Current	I _{O(off)}	-	-	0.5	μA	V _{CC} =50V, V _I =0
DC Current Gain	G _I	80	-	-	V	V _O =5V, I _O =10mA
Input Resistance	R ₁	3.29	4.7	6.11	kΩ	
Resistance Ratio	R ₂ /R ₁	8	10	12		
Transition Frequency	f _T	-	250	-	MHz	V _O =10V, I _O =5mA, f=100MHz

CHARACTERISTICS CURVE

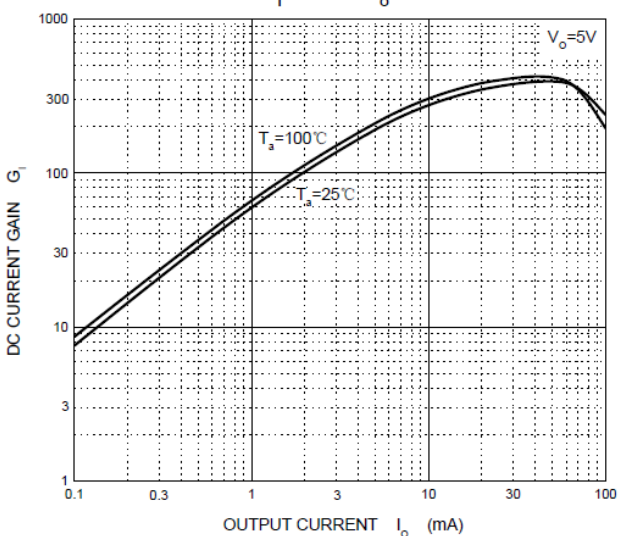
ON Characteristics



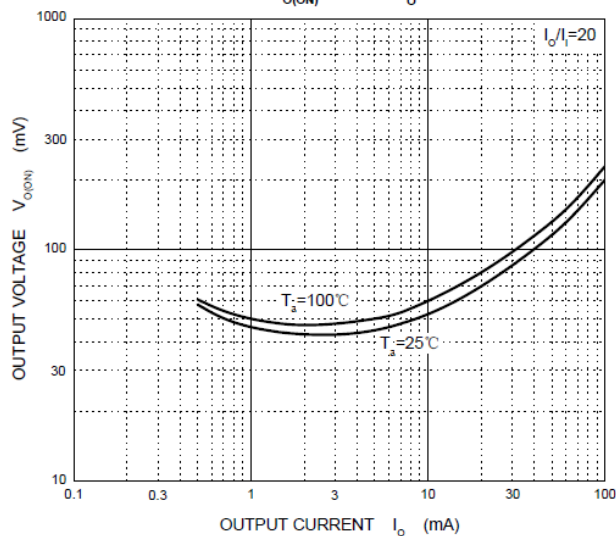
OFF Characteristics



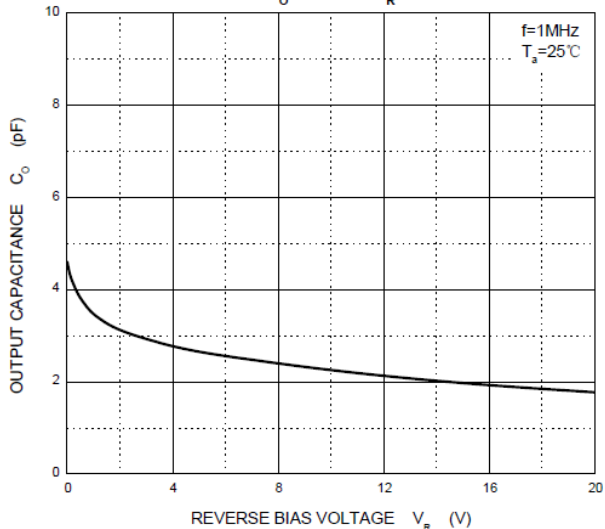
$G_I - I_O$



$V_{O(ON)} - I_O$



$C_O - V_R$



$P_D - T_a$

