

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

FEATURES

- Two DTC144E transistors are built-in a package

MARKING

G2

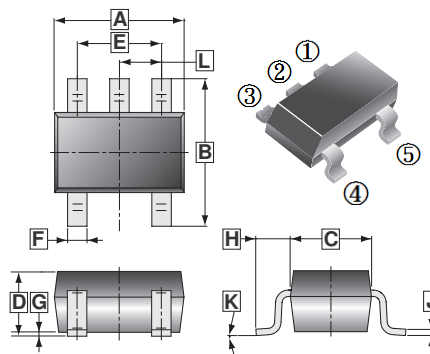
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-353	3K	7 inch

ORDER INFORMATION

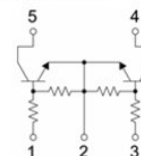
Part Number	Type
UMG2N	Lead (Pb)-free
UMG2N-C	Lead (Pb)-free and Halogen-free

SOT-353



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.00	2.20	G	0.100 REF.	
B	2.15	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.15
D	0.90	1.10	K		8°
E	1.20	1.40	L	0.650 TYP.	
F	0.15	0.35			

EQUIVALENT CIRCUIT



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

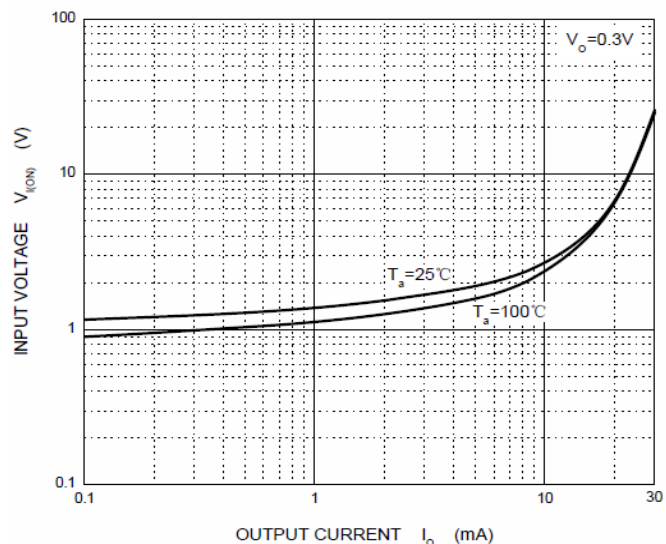
Parameter	Symbol	Value	Unit
Supply Voltage	V _{CC}	50	V
Input Voltage	V _{IN}	-10~40	
Output Current	I _O	30	mA
	I _C	100	
Power Dissipation	P _D	150	mW
Junction and Storage Temperature	T _J , T _{STG}	150, -55~150	°C

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

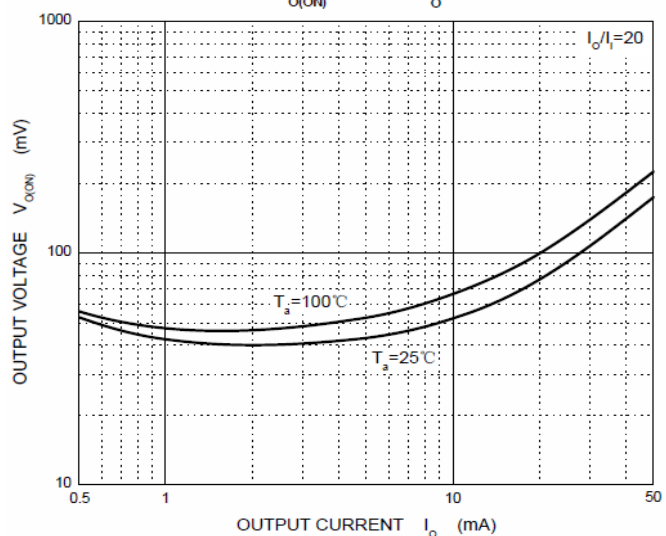
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Input Voltage	V _{I(off)}	0.5	-	-	V	V _{CC} =5V, I _O =100μA
	V _{I(on)}	-	-	3		V _O =0.3V, I _O =2mA
Output Voltage	V _{O(on)}	-	-	0.3		I _O =10mA, I _I =0.5mA
Input Current	I _I	-	-	0.18	mA	V _I =5V
Output Current	I _{O(off)}	-	-	0.5	μA	V _{CC} =50V, V _I =0
DC Current Gain	G _I	68	-	-	V	V _O =5V, I _O =5mA
Input Resistance	R _I	32.9	47	61.1	kΩ	
Resistance Ratio	R ₂ /R ₁	0.8	1	1.2		
Transition Frequency	f _T	-	250	-	MHz	V _{CE} =10V, I _E =-5mA, f=100MHz

CHARACTERISTICS CURVE (NPN)

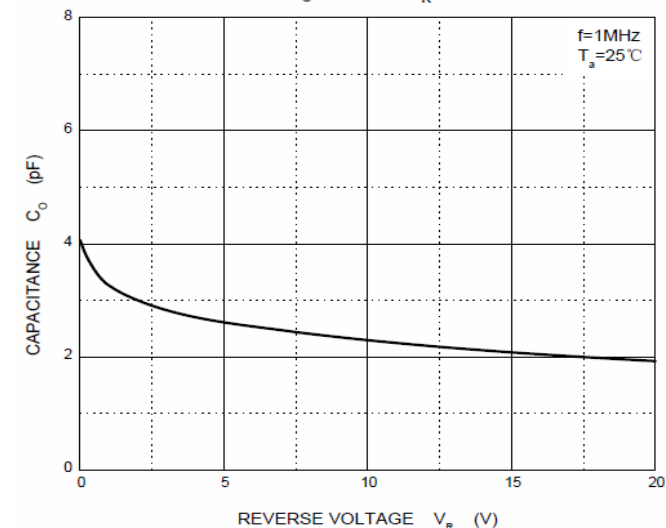
ON Characteristics



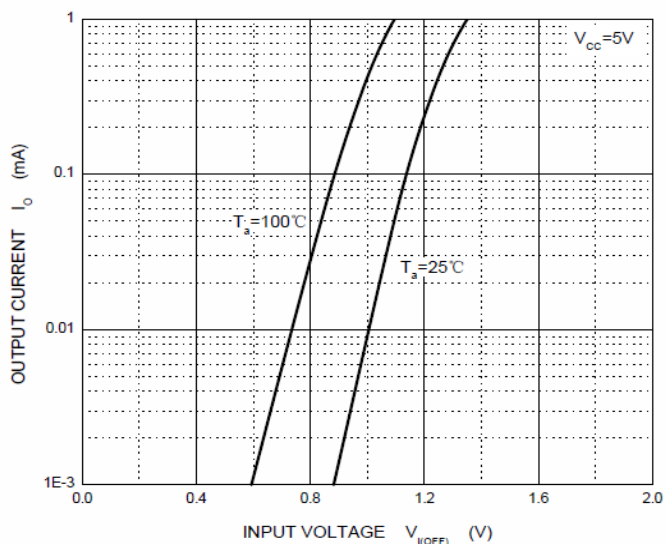
$V_{O(ON)}$ — I_O



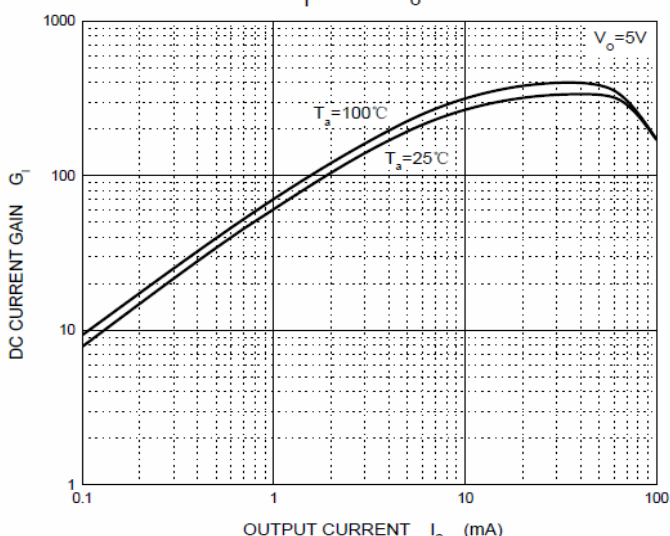
C_O — V_R



OFF Characteristics



G_I — I_O



P_D — T_a

