UMG2N-TP Datasheet

DiGi Electronics Part Number	UMG2N-TP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	UMG2N-TP
Description	TRANSISTOR
Detailed Description	Pre-Biased Bipolar Transistor (BJT) 2 NPN - Pre-Biased (Dual) 50V 100mA 250MHz 150mW Surface Mount SOT-353

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
UMG2N-TP	Micro Commercial Co
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
2 NPN - Pre-Biased (Dual)	100mA
Voltage - Collector Emitter Breakdown (Max):	Resistor - Base (R1):
50V	47kOhms
Resistor - Emitter Base (R2):	DC Current Gain (hFE) (Min) @ Ic, Vce:
47kOhms	68 @ 5mA, 5V
Vce Saturation (Max) @ Ib, Ic:	Current - Collector Cutoff (Max):
300mV @ 500µA, 10mA	500nA
Frequency - Transition:	Power - Max:
250MHz	150mW
Mounting Type:	Package / Case:
Surface Mount	5-TSSOP, SC-70-5, SOT-353
Supplier Device Package:	Base Product Number:
SOT-353	UMG2

Environmental & Export classification

RoHS Status:	ECCN:
ROHS3 Compliant	EAR99
HTSUS:	
8541.21.0075	

Micro Commercial Components

UMG2N

Dual NPN Digital Transistor

Features

- Two DTC144E Transistors Are Built-in a Package
- 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)

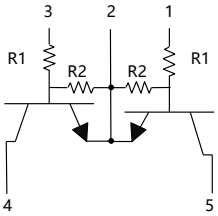
Maximum Ratings @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value	Unit
Supply Voltage	V_{CC}	50	V
Input Voltage	V_{IN}	-10~40	V
Output Current	I_O	30	mA
	$I_{C(Max)}$	100	mA
Power Dissipation	P_D	150	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55~150	°C
Thermal Resistance From Junction To Ambient	R_{thja}	833	°C/W

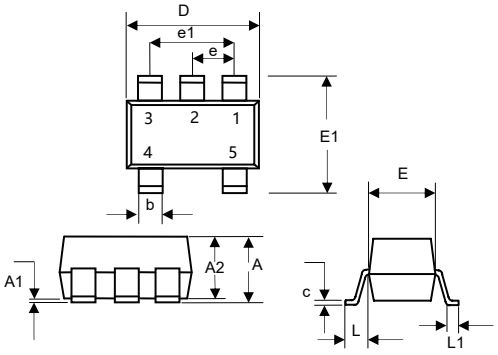
Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Device Marking：G2

Internal Structure



SOT-353



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.043	0.90	1.10	
A1	-----	0.004	-----	0.10	
A2	0.035	0.039	0.90	1.00	
b	0.006	0.014	0.15	0.35	
c	0.003	0.006	0.08	0.15	
D	0.790	0.087	2.00	2.20	
E	0.045	0.053	1.15	1.35	
E1	0.085	0.096	2.15	2.45	
e	0.026		0.650		TYP.
e1	0.047	0.055	1.20	1.40	
L	0.021		0.525		TYP.
L1	0.010	0.018	0.26	0.46	

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Input Voltage	$V_{I(off)}$	0.5	---	---	V	V_{CC}=5V, I_O=100μA
	$V_{I(on)}$	---	---	3.0	V	V_O=0.3V, I_O=2mA
Output Voltage	$V_{O(on)}$	---	---	0.3	V	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_O=5V, I_O=5mA
Input Resistance	R_1	32.9	47	61.1	KΩ	
Resistance Ratio	R_2/R_1	0.8	1.0	1.2		
Transition Frequency	f_T	---	250	---	MHz	V_{CE}=10V, I_E=-5mA, f=100MHz

Curve Characteristics

Fig. 1 - DC Current Gain Characteristics

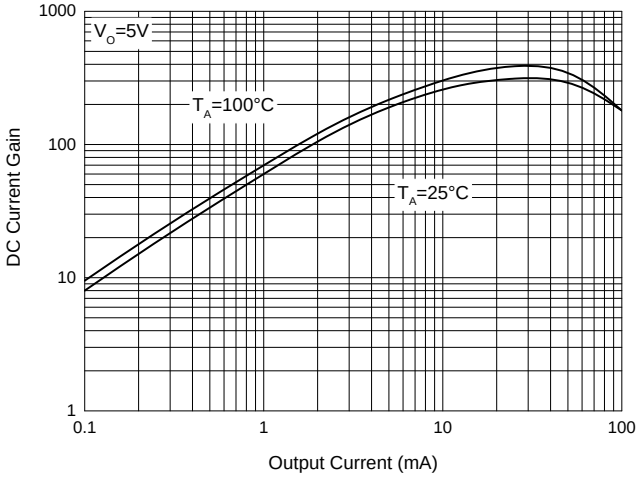


Fig. 2 - Input Voltage (on) Characteristics

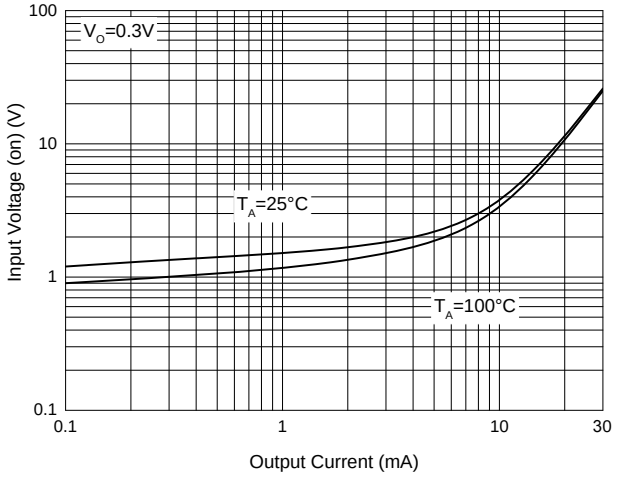


Fig. 3 - Input Voltage (off) Characteristics

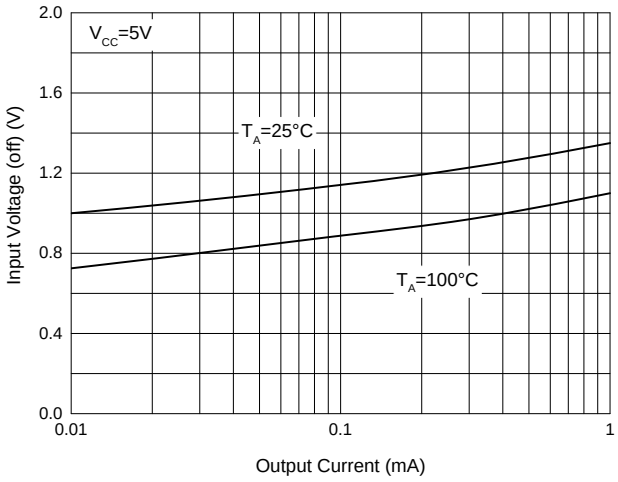


Fig. 4 - Output Voltage Characteristics

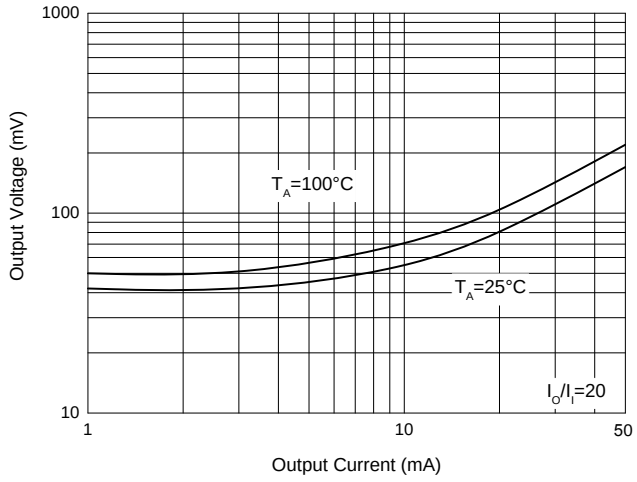
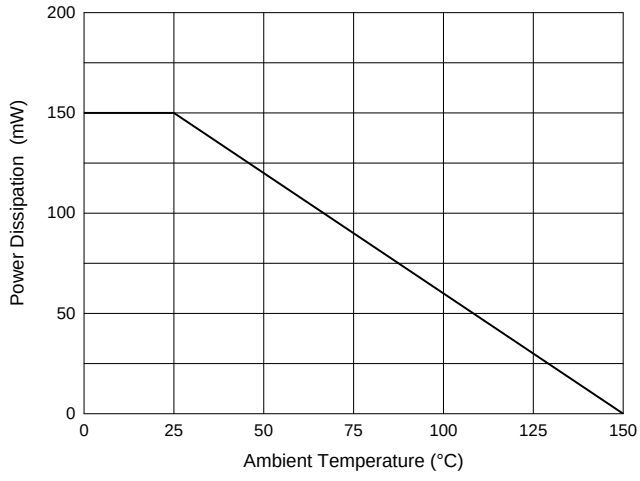


Fig. 5 - Power Derating Curve



Ordering Information

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

OUR CERTIFICATE

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