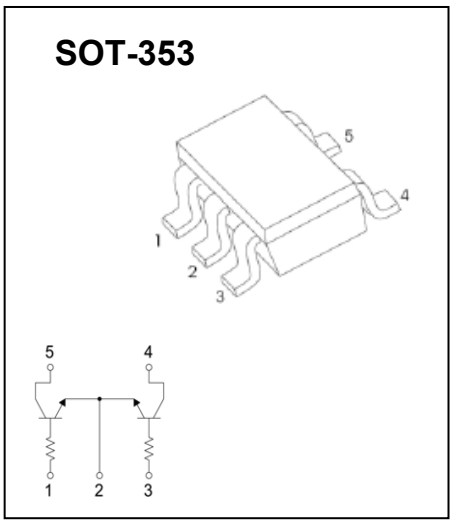
Digital Transistors (Built-in Resistors)

UMG3N Dual Digital Transistors (NPN+NPN)

FEATURES

- Two DTC143T chips in a package
- Mounting possible with SOT-353 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Mounting cost and area be cut in half.

Marking: G3



Absolute maximum ratings (Ta=25℃)

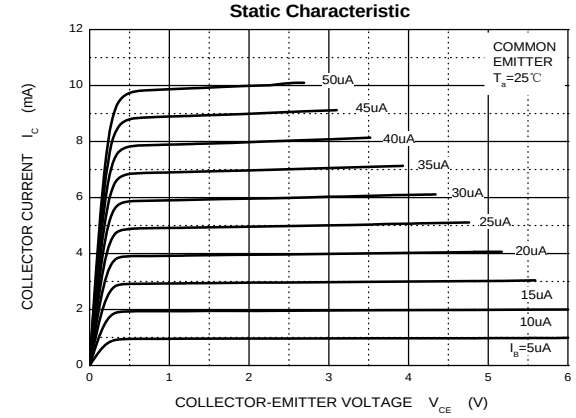
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	100	mA
P_C	Collector Power Dissipation	150	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55 ~+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

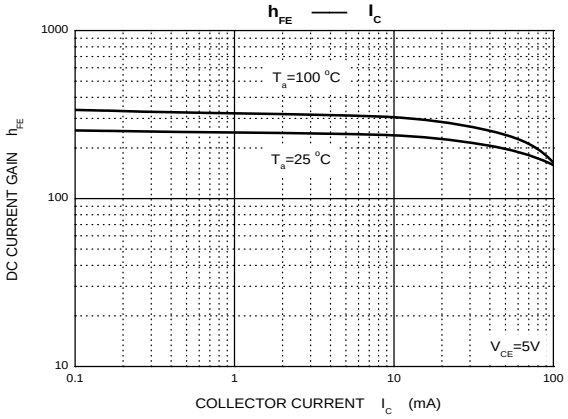
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA,I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=50V,I_E=0			0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.5	μA
DC current gain	h_{FE}	V_{CE}=5V,I_C=1mA	100		600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=5mA,I_B=0.25mA			0.3	V
Transition frequency	f_T	V_{CE}=10V,I_E=-5mA, f=100MHz		250		MHz
Input resistor	R_1		3.29	4.7	6.11	KΩ

Typical Characteristics

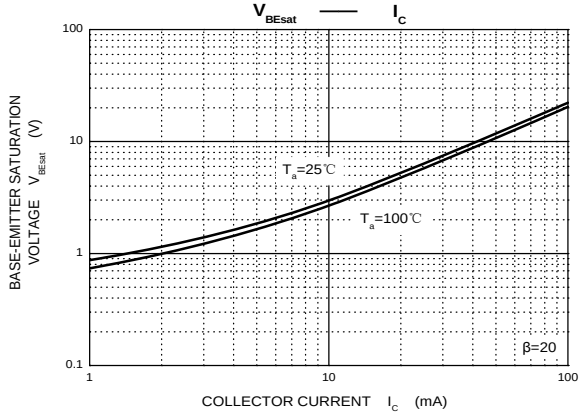
Static Characteristic



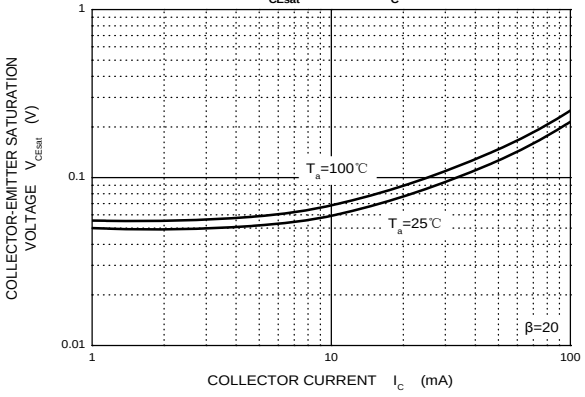
h_{FE} —— I_C



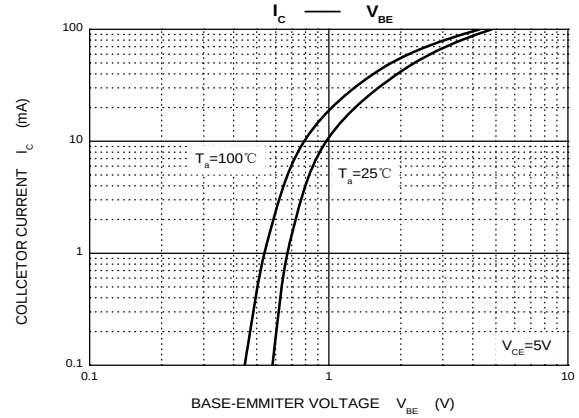
V_{BEsat} —— I_C



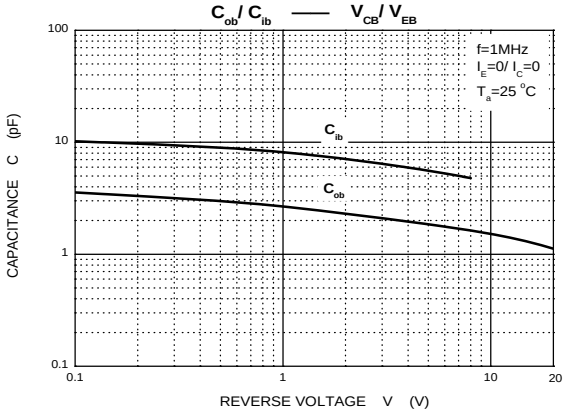
V_{CEsat} —— I_C



I_C —— V_{BE}



C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



P_D —— T_a