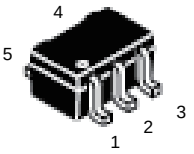
Dual NPN Digital Transistor

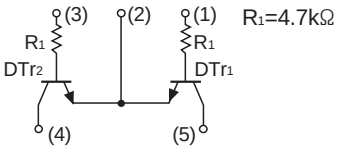
- Pb-Free Package is Available.

Ordering Information

Device	Marking	Shipping
UMG3N	TR	3000/Tape&Reel
UMG3N	TR	10000/Tape&Reel



SC-88A



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Rating	Symbol	Value	Unit
Collector–Emitter Voltage	V_{CEO}	50	Vdc
Collector–Base Voltage	V_{CBO}	50	Vdc
Emitter–Base Voltage	V_{EBO}	5.0	Vdc
Collector current	I_C	100	mAdc
Collector power dissipation	P_C	150	mW
Junction temperature	T_J	150	°C
Storage Temperature	T_{stg}	–55 to +150	°C

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	–	–	V	I_C=50μA
Collector-emitter breakdown voltage	BV_{CEO}	50	–	–	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	–	–	V	I_E=50μA
Collector cutoff current	I_{CBO}	–	–	0.5	μA	V_{CB}=50V
Emitter cutoff current	I_{EBO}	–	–	0.5	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	–	–	0.3	V	I_C/I_B=5mA/0.25mA
DC current transfer ratio	h_{FE}	100	250	600	–	V_{CE}=5V, I_C=1mA
Transition frequency	f_T	–	250	–	MHz	V_{CE}=10V, I_E= –5mA, f=100MHz
Input resistance	R_1	3.29	4.7	6.11	kΩ	–

●Electrical characteristic curves

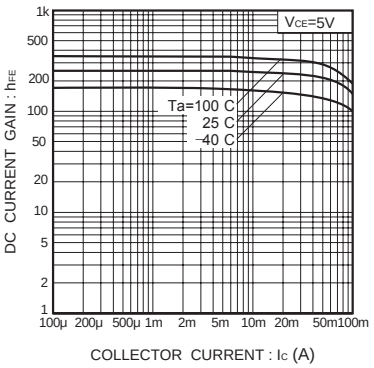


Fig.1 DC current gain vs. collector current

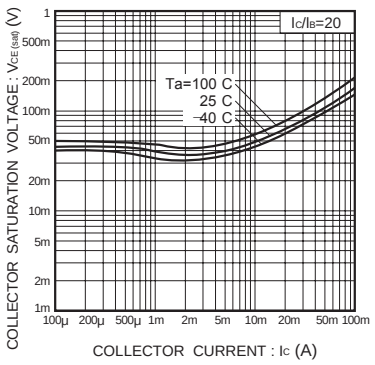
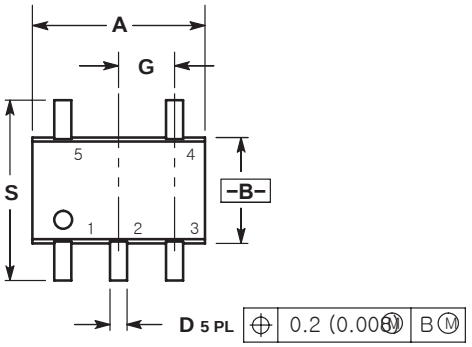
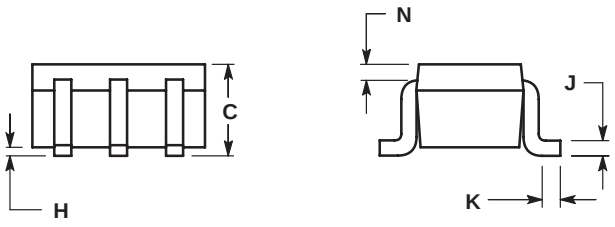


Fig.2 Collector-emitter saturation voltage vs. collector current

SC-88A





DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	---	0.004	---	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20