Micro Commercial Components

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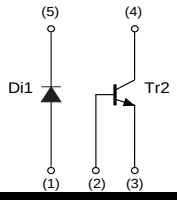
UML6N

ISOLATED TRANSISTOR AND DIODES

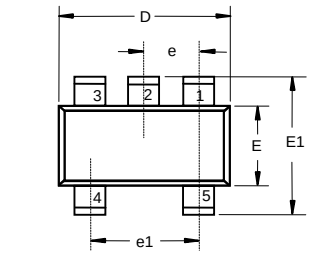
Features

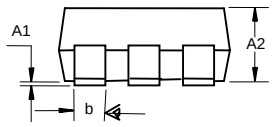
- Halogen free available upon request by adding suffix "-HF"
- 2SC5585 and RB521S-30 are housed independently
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

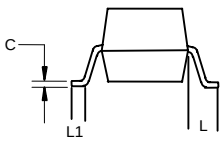


MARKING:L6

SOT-353







DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A1	---	.004	---	0.100	
A2	.035	.039	0.900	1.000	
b	.006	.014	0.150	0.350	
c	.003	.006	0.080	0.150	
D	0.79	.087	2.000	2.200	
E	.045	.053	1.150	1.350	
E1	.085	.096	2.150	2.450	
e	.026TYP		0.650TYP		
e1	.047	.055	1.200	1.400	
L	.021REF		0.525REF		
L1	.010	.018	0.260	0.460	

●Absolute maximum ratings (Ta=25°C)

Di1

Parameter	Symbol	Limits	Unit
Average revtified forward current	I_O	200	mA
Forward current surge peak (60Hz, 1∞)	I_{FSM}	1	A
Reverse voltage (DC)	V_R	30	V
Junction temperature	Tj	125	°C

Tr2

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	15	V
Collector-emitter voltage	V_{CEO}	12	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	500	mA
	I_{CP}	1	A
Power dissipation	P_d	120	mW *1
Junction temperature	Tj	150	°C

*1 Each terminal mounted on a recommended.

Di1 / Tr2

Parameter	Symbol	Limits	Unit
Power dissipation	P_d	150	mW *
Storage temperature	Tstg	−55 to +125	°C

* Each terminal mounted on a recommended.

●**Electrical characteristics** (Ta=25°C)

Di1

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	–	0.40	0.50	V	I_F=200mA
Reverse current	I_R	–	4.0	30	μA	V_R=10V

Tr2

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	12	–	–	V	I_C=1mA
Collector-base breakdown voltage	BV_{CBO}	15	–	–	V	I_C=10μA
Emitter-base breakdown voltage	BV_{EBO}	6	–	–	V	I_E=10μA
Collector cut-off current	I_{CBO}	–	–	100	nA	V_{CB}=15V
Emitter cut-off current	I_{EBO}	–	–	100	nA	V_{EB}=6V
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	90	250	mV	I_C=200mA, I_B=10mA
DC current gain	h_{FE}	270	–	680	–	V_{CE}=2V, I_C=10mA
Transition frequency	f_T	–	320	–	MHz	V_{CE}=2V, I_E=–10mA, f=100MHz
Collector output capacitance	Cob	–	7.5	–	pF	V_{CB}=10V, I_E=0mA, f=1MHz

Typical Characteristics

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●Electrical characteristic curves

Di1

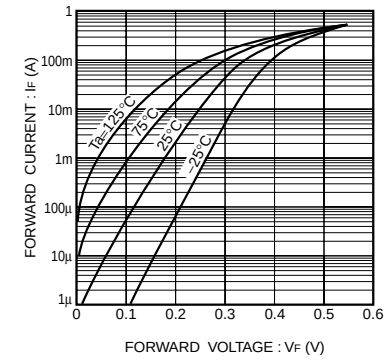

Fig.1 Forward characteristics

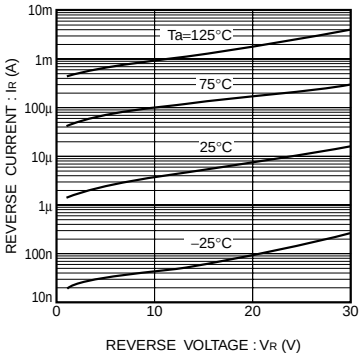

Fig.2 Reverse characteristics

Tr2

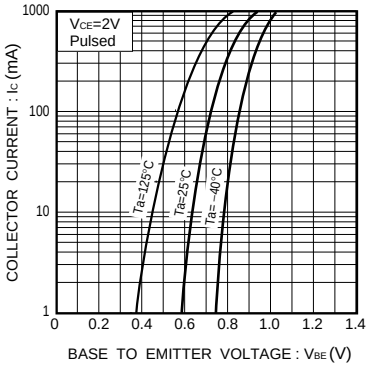

Fig.3 Grounded emitter propagation characteristics

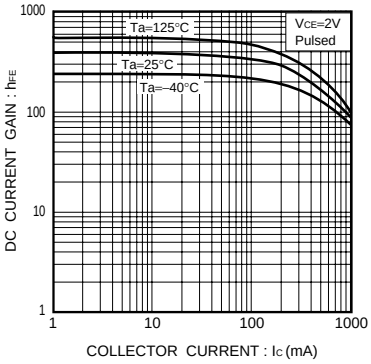

Fig.4 DC current gain vs. collector current

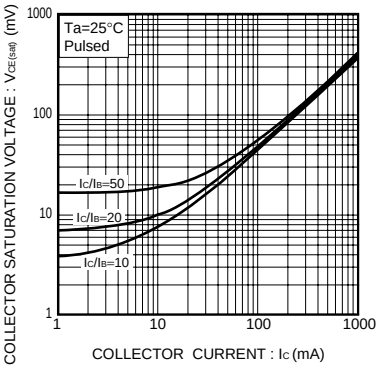

Fig.5 Collector-emitter saturation voltage vs. collector current (I)

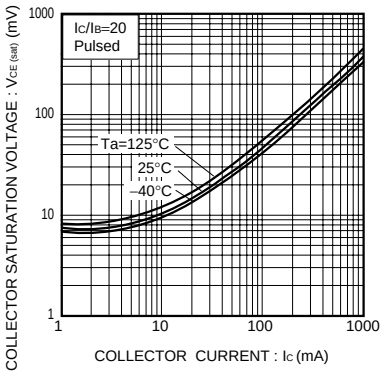

Fig.6 Collector-emitter saturation voltage vs. collector current (II)

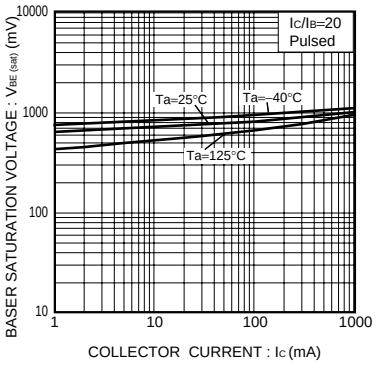

Fig.7 Base-emitter saturation voltage vs. collector current

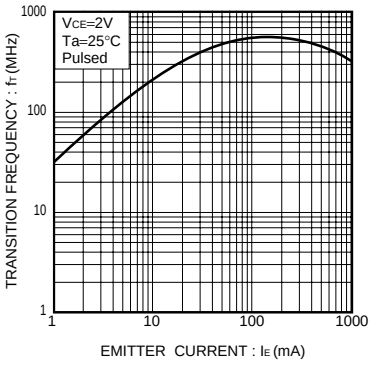

Fig.8 Gain bandwidth product vs. emitter current

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Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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