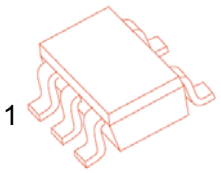
General purpose transistors(Isolated transistor and diode)

FEATURES

2SC5585 and RB521S-30 chips in a package

SOT-353



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APPLICATIONS

DC / DC converter

Motor driver

FEATURES

1) Tr : Low VCE(sat)

Di : Low VF

2) Small package

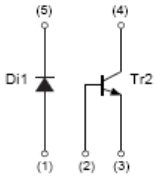
STRUCTURE

Silicon epitaxial planar transistor

Schottky barrier diode

Marking: L6

Equivalent circuit



Absolute maximum ratings (Ta=25℃)

DI

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	30	V
Mean rectifying current	I_O	200	mA
Peak forward surge current	I_{FSM}	1	A
Junction temperature	**Tj**	125	℃
Storage temperature	T_{stg}	-55~+150	℃

TR

Symbol	Parameter	Limits	Unit
V_{CBO}	Collector-Base Voltage	15	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	500	mA
P_C	Collector Dissipation	150	mW
T_j	Junction temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

DI

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F			0.5	V	I_F=200mA
Reverse current	I_R			30	μA	V_R=10V

TR

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	15			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=15V,I_E=0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}=6V,I_C=0			0.1	uA
DC current gain	h_{FE}	V_{CE}=2V,I_C=10mA	270		680	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=200mA,I_B=10mA			0.25	V
Transition frequency	f_T	V_{CE}=2V,I_E=-10mA, f=100MHz		320		MHz
Collector output capacitance	Cob	V_{CB}=10V,I_E=0mA, f=1MHz		7.5		pF