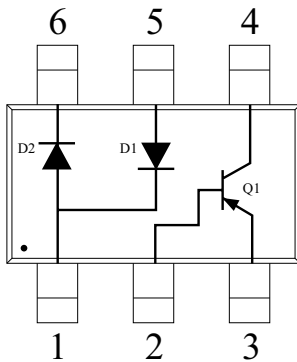


TV Control board Application

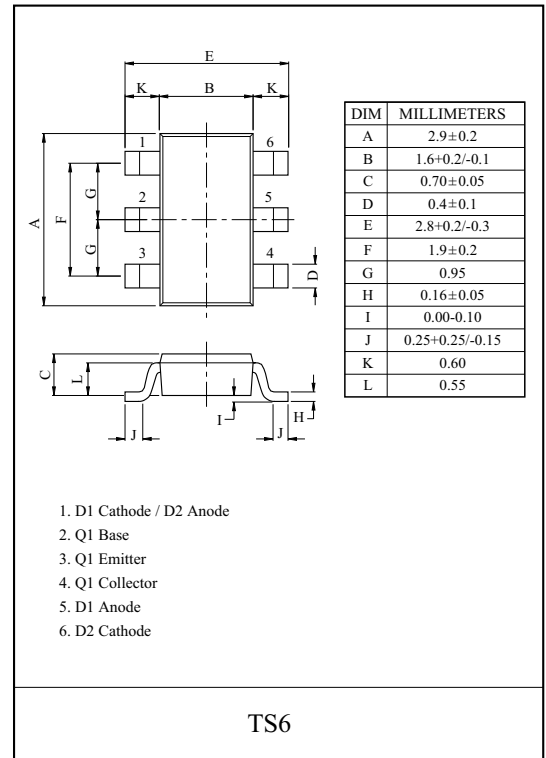
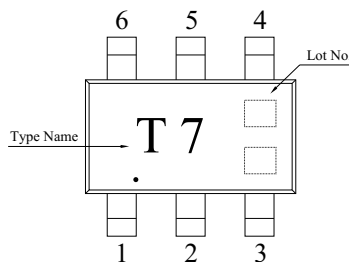
FEATURES

- One PNP Transistor (Q1)
- Two Switching Diode (D1, D2)
- Low Saturation Voltage
: $V_{CE(sat)} = -0.25V(\text{Max}) @ I_C = -100\text{mA}, I_B = -10\text{mA}$

EQUIVALENT CIRCUIT (TOP VIEW)



Marking



MAXIMUM RATING (Ta=25)

TRANSISTOR

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	mA
Base Current	I_B	-100	mA

DIODE

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	80	V
Reverse Voltage	V_R	80	V
Maximum (Peak) Forward Current	I_{FM}	300	mA
Average Forward Current	I_O	200	mA
Surge Current (100µs)	I_{FSM}	4	A

COMMON

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Dissipation	* P_D	900	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

* : Package mounted on a ceramic board (600mm² × 0.8mm)

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ELECTRICAL CHARACTERISTICS (Ta=25)

TRANSISTOR

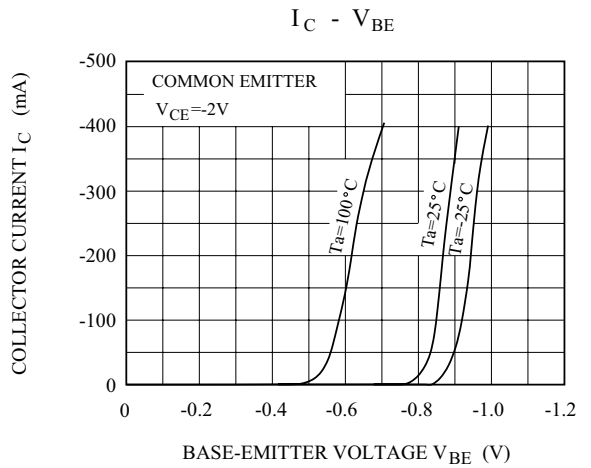
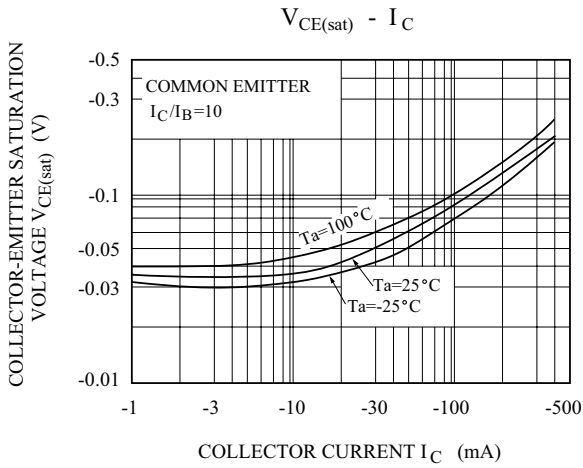
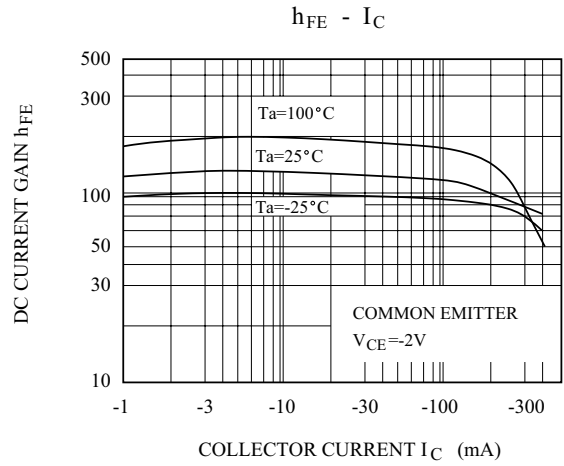
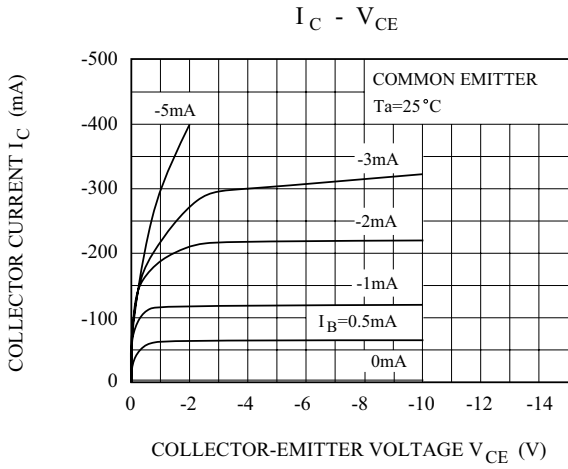
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=80V, I_E=0$	-	-	-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5V, I_C=0$	-	-	-0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-80	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-1V, I_C=-10mA$	100	-	-	
	$h_{FE(2)}$	$V_{CE}=-1V, I_C=-100mA$	100	-	250	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-10mA$	-	-	-0.25	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-1V, I_C=-100mA$	-	-	-1.2	V
Transition Frequency	f_T	$V_{CE}=-2V, I_C=-10mA$	100	-	-	MHz

ELECTRICAL CHARACTERISTICS (Ta=25)

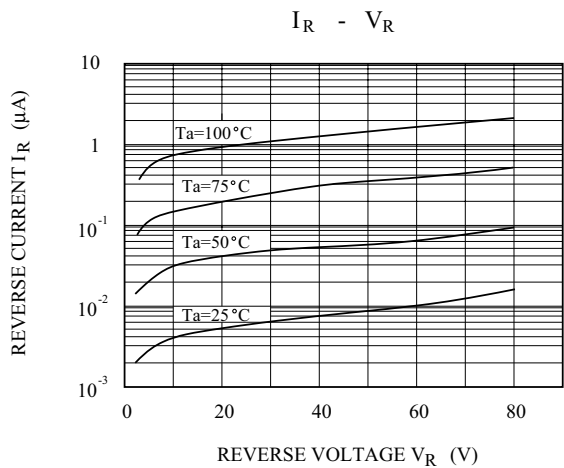
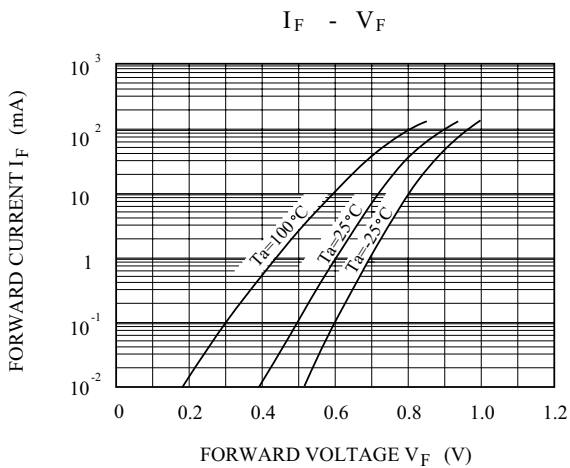
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F(1)}$	$I_F=1mA$	-	0.60	-	V
	$V_{F(2)}$	$I_F=10mA$	-	0.72	-	
	$V_{F(3)}$	$I_F=100mA$	-	0.90	1.20	
Reverse Current	I_R	$V_R=80V$	-	-	0.1	μA
Total Capacitance	C_T	$V_R=0V, f=1MHz$	-	0.9	3.0	pF
Reverse Recovery Time	t_{rr}	$I_F=10mA$	-	1.6	4.0	nS

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Q1 (NPN TRANSISTOR)



D1, D2 (SWITCHING DIODE)



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