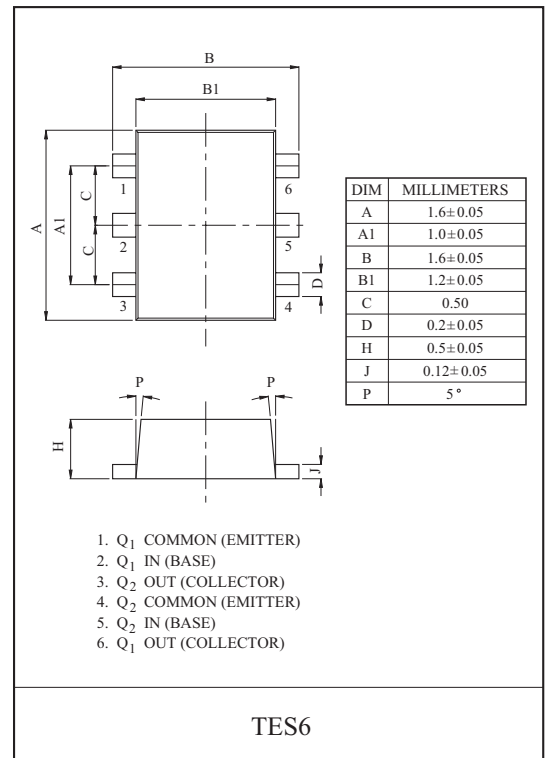
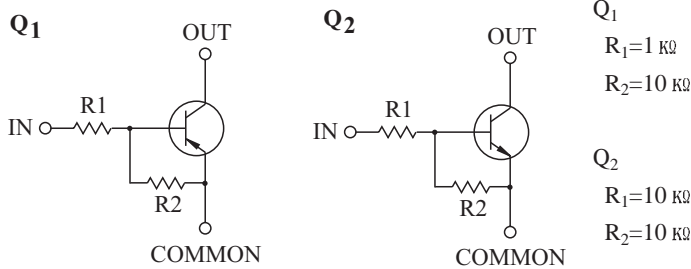


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

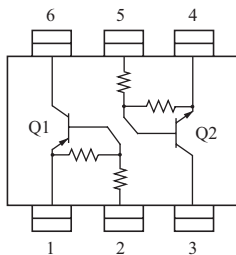
FEATURES

- Including two devices in TES6.
- With Built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.

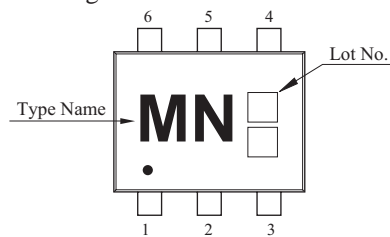
EQUIVALENT CIRCUIT



EQUIVALENT CIRCUIT (TOP VIEW)



Marking



Q1 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	V_O	-30	V
Input Voltage	V_I	-30, 5	V
Output Current	I_O	-500	mA

Q2 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	V_O	50	V
Input Voltage	V_I	30, -10	V
Output Current	I_O	100	mA

Q1, Q2 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Dissipation	P_D^*	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

* Total Rating.

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Q1 ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Output Cut-off Current	$I_{O(OFF)}$	$V_O=-30V, V_I=0$	-	-	-100	nA
DC Current Gain	G_I	$V_O=-5V, I_O=-100\text{ mA}$	140	-	-	
Output Voltage	$V_{O(ON)}$	$I_O=-50\text{ mA}, I_I=-2.5\text{ mA}$	-	-0.07	-0.3	V
Input Voltage (ON)	$V_{I(ON)}$	$V_O=-0.3V, I_O=-20\text{ mA}$	-	-	-2.5	V
Input Voltage (OFF)	$V_{I(OFF)}$	$V_O=-5V, I_O=-0.1\text{ mA}$	-0.3	-	-	V
Transition Frequency	f_T^*	$V_O=-10V, I_O=-5\text{ mA}, f=100\text{ MHz}$	-	260	-	MHz
Input Current	I_I	$V_I=-5V$	-	-	-6.4	mA
Input resistance	R_I	-	0.7	1	1.3	kΩ
Resistance Ratio	R_2/R_1	-	8	10	12	-

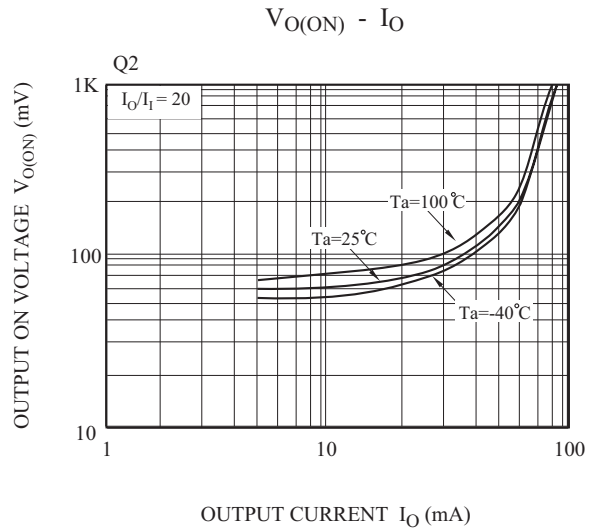
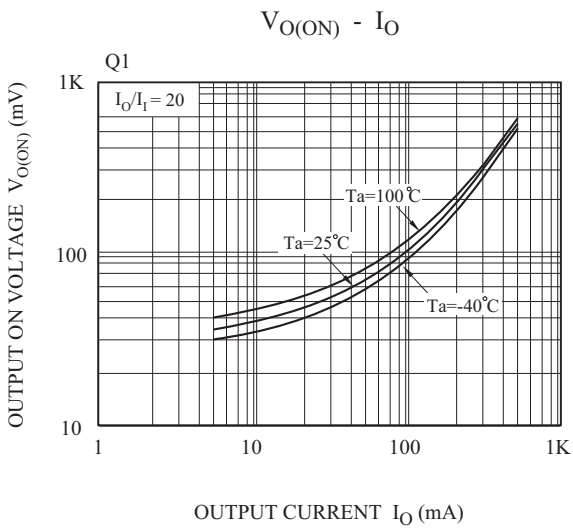
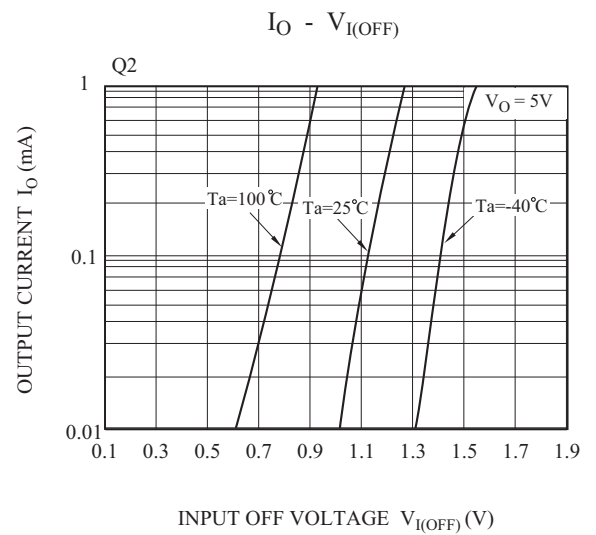
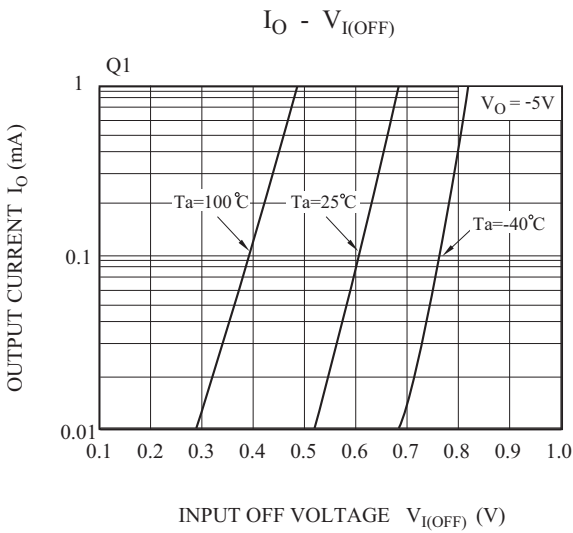
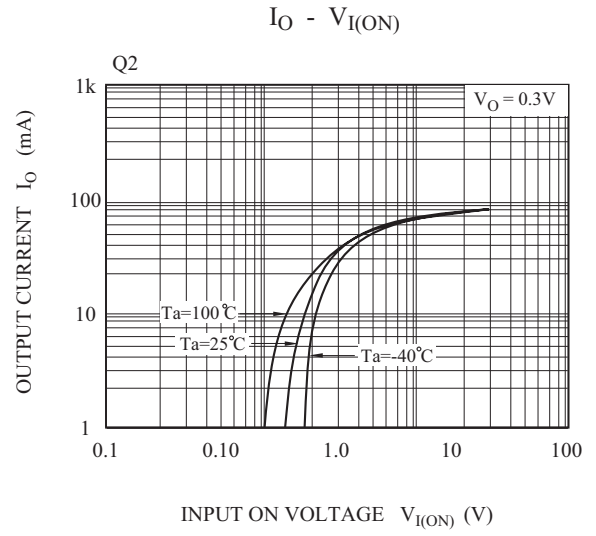
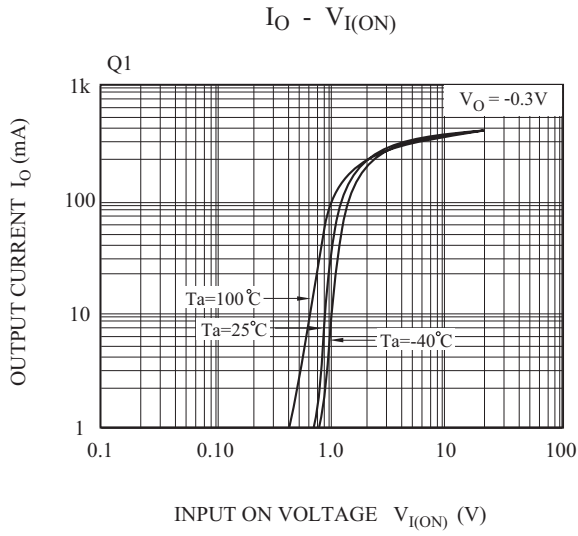
Note : * Characteristic of Transistor Only.

Q2 ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Output Cut-off Current	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	G_I	$V_O=5V, I_O=10\text{ mA}$	50	80	-	
Output Voltage	$V_{O(ON)}$	$I_O=10\text{ mA}, I_I=0.5\text{ mA}$	-	0.1	0.3	V
Input Voltage (ON)	$V_{I(ON)}$	$V_O=0.2V, I_O=5\text{ mA}$	-	1.8	2.4	V
Input Voltage (OFF)	$V_{I(OFF)}$	$V_O=5V, I_O=0.1\text{ mA}$	1.0	1.2	-	V
Transition Frequency	f_T^*	$V_O=10V, I_O=5\text{ mA}$	-	200	-	MHz
Input Current	I_I	$V_I=5V$	-	-	0.88	mA
Input resistance	R_I	-	7	10	13	kΩ
Resistance Ratio	R_2/R_1	-	0.8	1	1.2	-

Note : * Characteristic of Transistor Only.

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