

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

HN3C02F

TV TUNER, UHF OSCILLATOR APPLICATION.
TV TUNER, UHF CONVERTER APPLICATION.

- Including Two Devices in SM6 (Super Mini Type with 6Leads)
- High Transition Frequency : $f_T=2400\text{MHz}$ (Typ.)

MAXIMUM RATINGS (Ta = 25°C) (Q1, Q2)

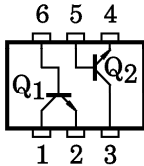
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CEO}	15	V
Emitter-Base Voltage	V _{EB0}	3	V
Collector Current	I _C	50	mA
Base Current	I _B	25	mA
Collector Power Dissipation	P _C *	300	mW
Junction Temperature	T _j	125	°C
Storage Temperature Range	T _{stg}	-55~125	°C

* Total

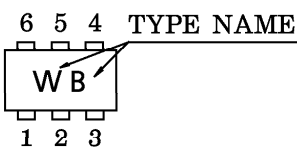
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} = 30V, I _E = 0	—	—	0.1	μA
Emitter Cut-off Current	I _{EB0}	V _{EB} = 2V, I _C = 0	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = 1mA, I _B = 0	15	—	—	V
DC Current Gain	h _{FE}	V _{CE} = 10V, I _E = 5mA	40	—	200	—
Transition Frequency	f _T	V _{CE} = 10V, I _C = 2mA, f = 800MHz	1500	2400	—	MHz
Reverse Transfer Capacitance Q1	C _{re} (1)	V _{CB} = 10V, I _E = 0, f = 1MHz	—	0.53	0.85	pF
Reverse Transfer Capacitance Q2	C _{re} (2)	V _{CB} = 10V, I _E = 0, f = 1MHz	—	0.48	0.80	pF
Collector-Base Time Constant Q1	C _{c·rbb'} (1)	V _{CB} = 10V, I _C = 2mA, f = 30MHz	—	15.0	22.0	ps
Collector-Base Time Constant Q2	C _{c·rbb'} (2)	V _{CB} = 10V, I _C = 2mA, f = 30MHz	—	14.5	21.5	ps

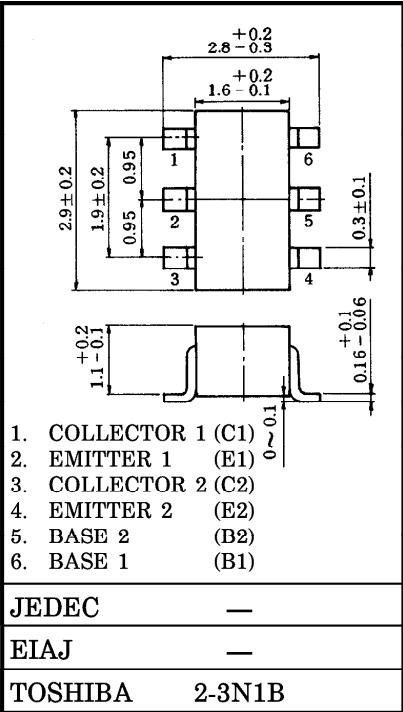
PIN ASSIGNMENT (TOP VIEW)



MARKING



Unit in mm



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