

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

HN3C12FU

VHF~UHF BAND LOW NOISE AMPLIFIER APPLICATIONS

Unit in mm

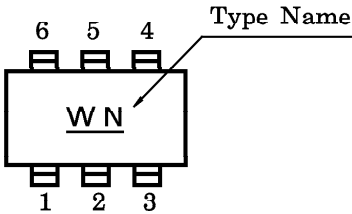
- Including Two Devices in US6 (Ultra Super Mini Type with 6 Leads)

MAXIMUM RATINGS (Ta = 25°C)

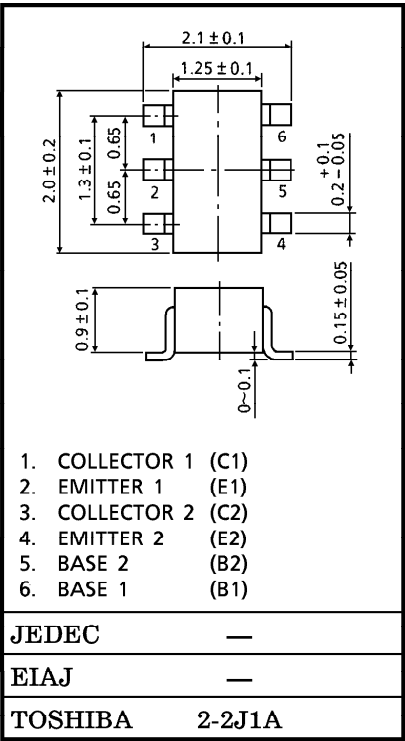
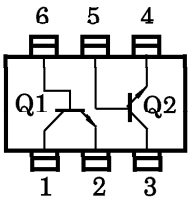
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	VCBO	20	V
Collector-Emitter Voltage	VCEO	10	V
Emitter-Base Voltage	VEBO	1.5	V
Base Current	IB	7	mA
Collector Current	IC	15	mA
Collector Power Dissipation	PC*	200	mW
Junction Temperature	Tj	125	°C
Storage Temperature Range	Tstg	-55~125	°C

* : Total

MARKING



PIN ASSIGNMENT (TOP VIEW)



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	ICBO	VCB=10V, IE=0	—	—	1	μA
Emitter Cut-off Current	IEBO	VEB=1V, IC=0	—	—	1	μA
DC Current Gain	hFE	VCE=6V, IC=7mA	50	—	160	—
Transition Frequency	fT	VCE=6V, IC=7mA	7	10	—	GHz
Insertion Gain	S21e ²	VCE=6V, IC=7mA, f=2GHz	4	7	—	dB
Noise Figure	NF	VCE=6V, IC=3mA, f=2GHz	—	1.8	3	dB
Reverse Transfer Capacitance Q1	Cre	VCB=10V, IE=0, f=1MHz (Note)	—	0.4	0.9	pF
Reverse Transfer Capacitance Q2	Cre		—	0.35	0.85	pF

(Note) Cre is measured by 3 terminal method capacitance bridge.

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