

UTC2SD1624 NPN EPITAXIAL PLANAR SILICON TRANSISTOR

HIGH CURRENT SWITCHING APPLICATION

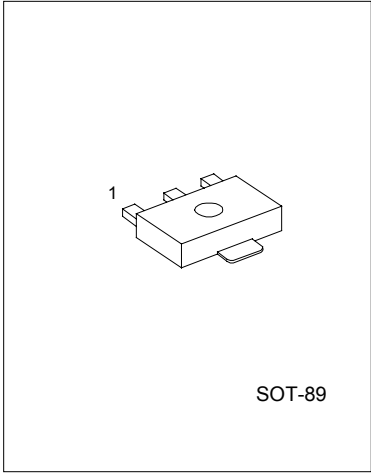
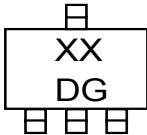
DESCRIPTION

The UTC 2SD1624 applies to voltage regulators, relay drivers, lamp drivers, and electrical equipment.

FEATURES

- *Adoption of FBET, MBIT processes
- *Low collector-to-emitter saturation voltage
- *Fast switching speed.
- *Large current capacity and wide ASO.

MARKING



SOT-89

1:EMITTER 2: COLLECTOR 3: BASE

ABSOLUTE MAXIMUM RATINGS (Ta=25°C ,unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	VCBO	60	V
Collector-Emitter Voltage	VCEO	50	V
Emitter-Base Voltage	VEBO	6	V
Collector Power Dissipation(Tc=25°C)	Pc	500	mW
Collector Current(DC)	Ic	3	A
Collector Current(PULSE)	Icp	6	A
Junction Temperature	Tj	150	°C
Storage Temperature	TSTG	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cutoff Current	ICBO	VCB=40V,IE=0			1	μA
Emitter Cutoff Current	IEBO	VEB=4V,IC=0			1	μA
DC Current Gain (note)	hFE	VCE=2V, Ic=100mA	100		560	
Gain-Bandwidth Product	fT	VCE=10V, IC=50mA		150		MHz
Output Capacitance	Cob	VCE=10V,f=1MHz		25		pF
C-E Saturation Voltage	VCE(sat)	IC=2A,IB=100mA		0.19	0.5	V
B-E Saturation Voltage	VBE(sat)	IC=2A,IB=100mA		0.94	1.2	V
C-B Breakdown Voltage	V(BR)CBO	IC=10μA,IE=0	60			V
C-E Breakdown Voltage	V(BR)CEO	IC=1mA,RBE=∞	50			V
E-B Breakdown Voltage	V(BR)EBO	IE=10μA,IC=0	6			V
Turn-on Time	ton	See test circuit		70		ns

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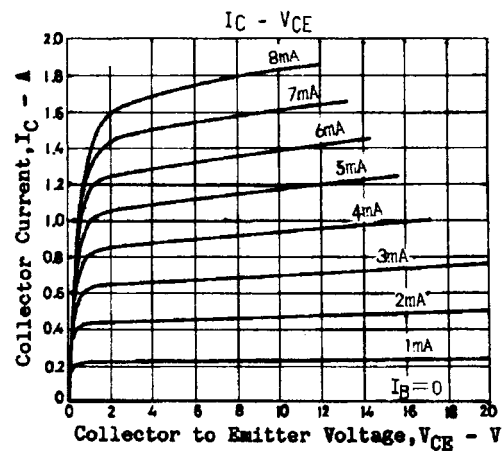
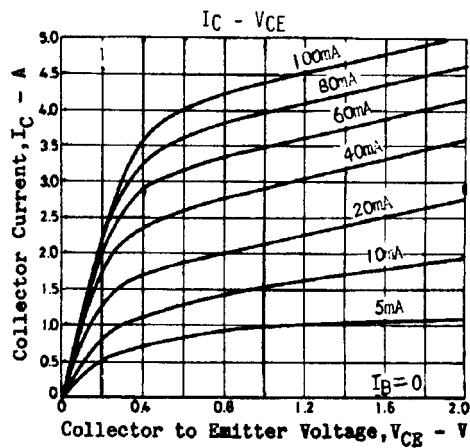
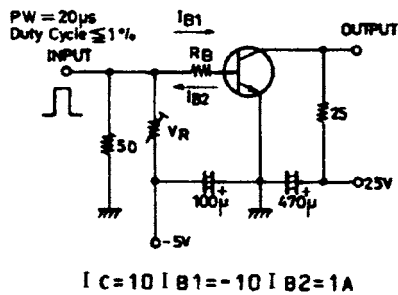
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PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Storage Time	tstg	See test circuit		650		ns
Fall Time	tf	See test circuit		35		ns

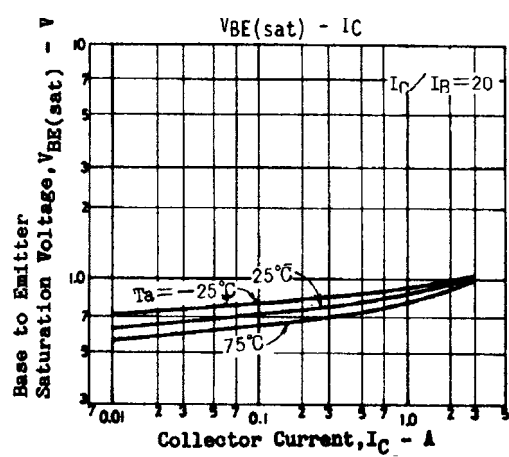
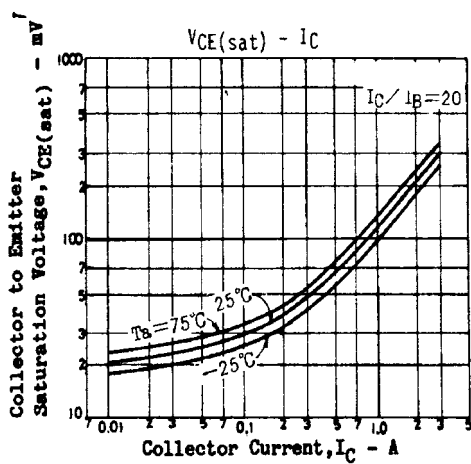
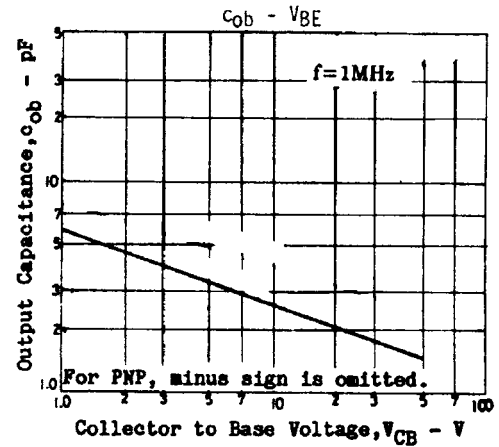
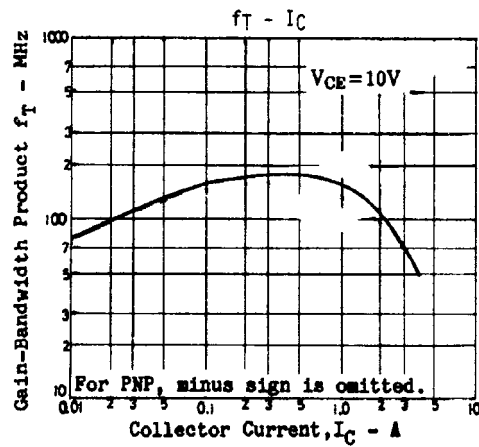
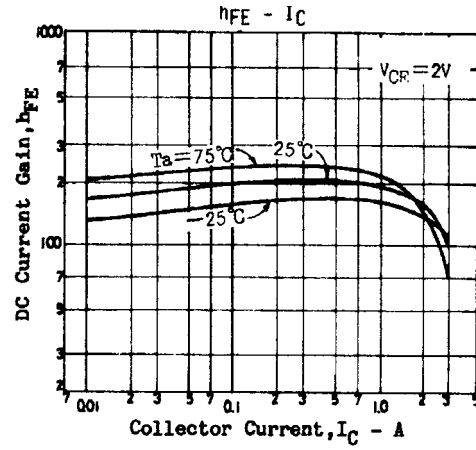
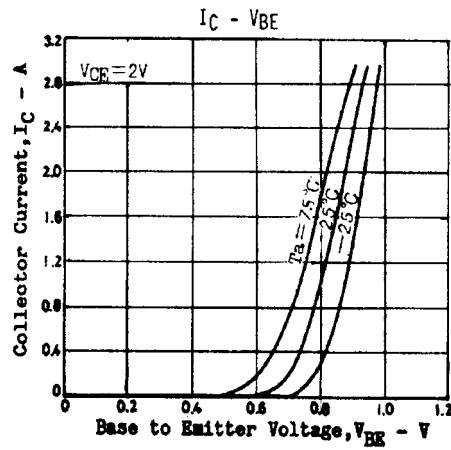
CLASSIFICATION OF hFE

RANK	R	S	T	U
RANGE	100-200	140-280	200-400	280-560

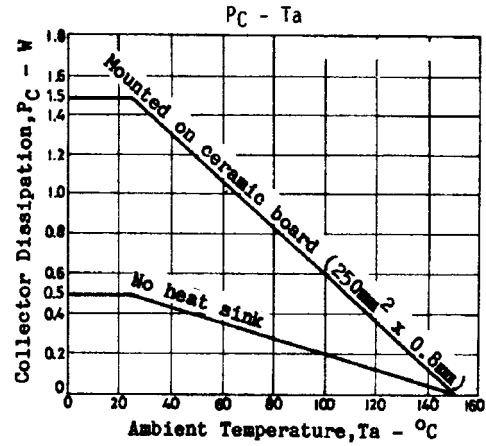
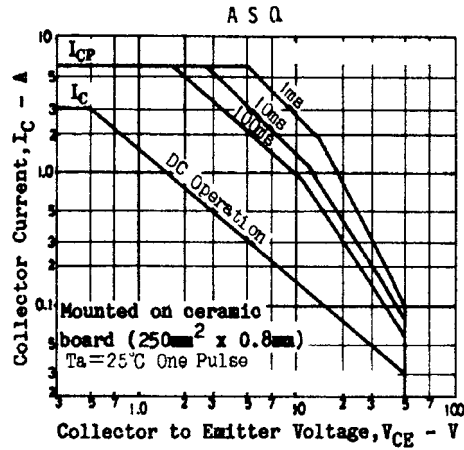
TEST CIRCUIT (Unit : (resistance : Ω , capacitance : F))



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