



ULB122

NPN SILICON TRANSISTOR

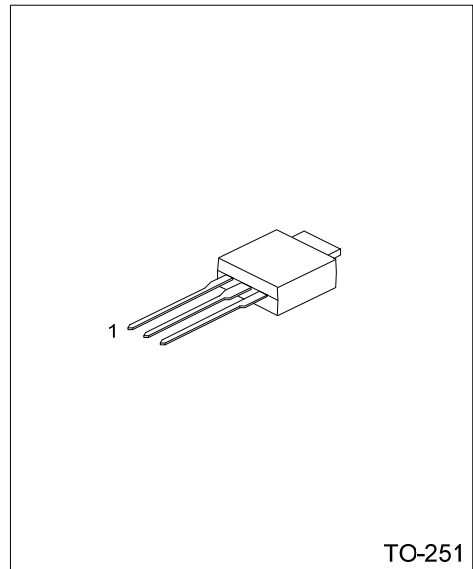
NPN TRIPLE DIFFUSED PLANAR TYPE HIGH VOLTAGE TRANSISTOR

■ DESCRIPTION

The UTC **ULB122** is a medium power transistor designed for use in switching applications.

■ FEATURES

- * High breakdown voltage
- * Low collector saturation voltage
- * Fast switching speed
- * Halogen Free



■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
ULB122G-xx-TM3-T	TO-251	B	C	E	Tube

<p>ULB122G-xx-TM3-T</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Halogen Free</p>	<p>(1) T: Tube (2) TM3: TO-251 (3) xx: refer to Classification of hFE1 (4) G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATING (T_A=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CBO}	600	V
Collector-Emitter Voltage	V _{CEO}	400	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current	DC	800	mA
	Pulse	1600	mA
Base Current	DC	100	mA
	Pulse	200	mA
Total Power Dissipation (T _C =25°C)	P _D	20	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-40 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified.)

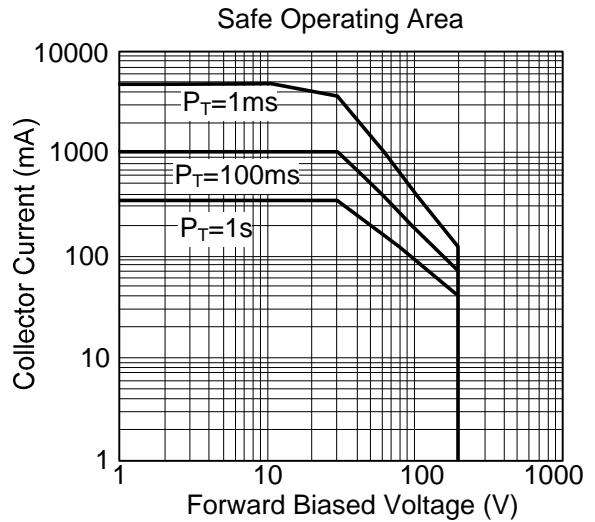
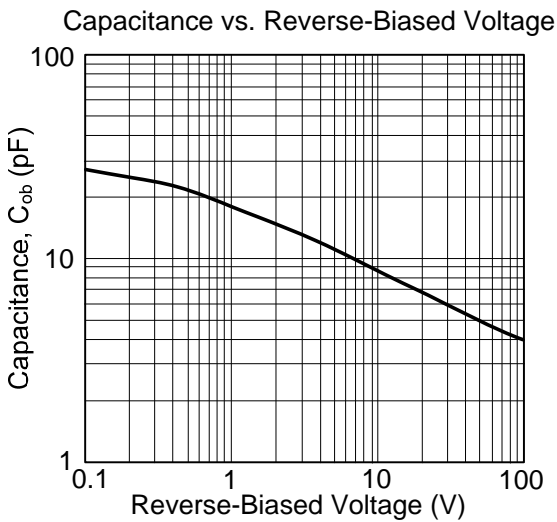
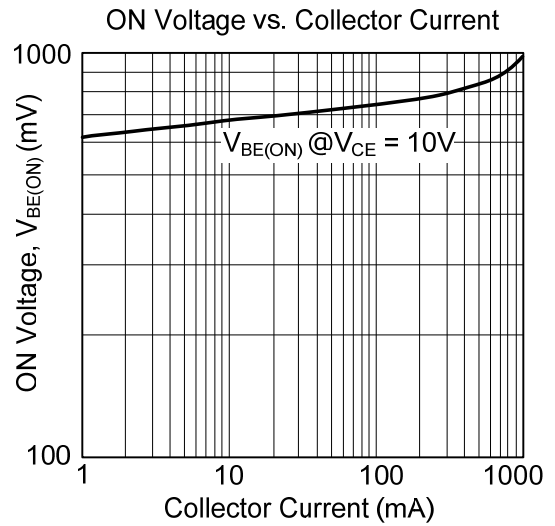
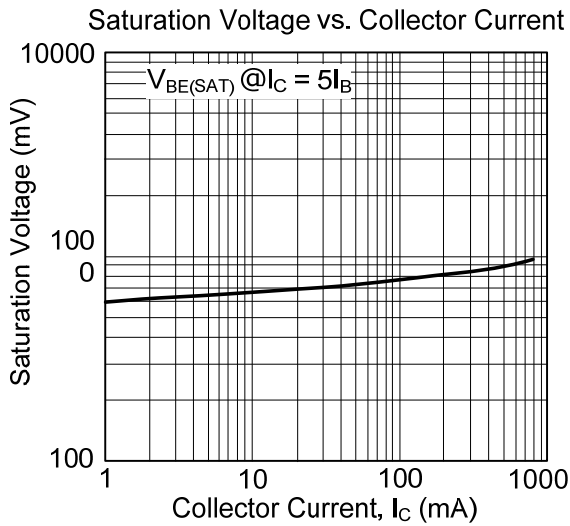
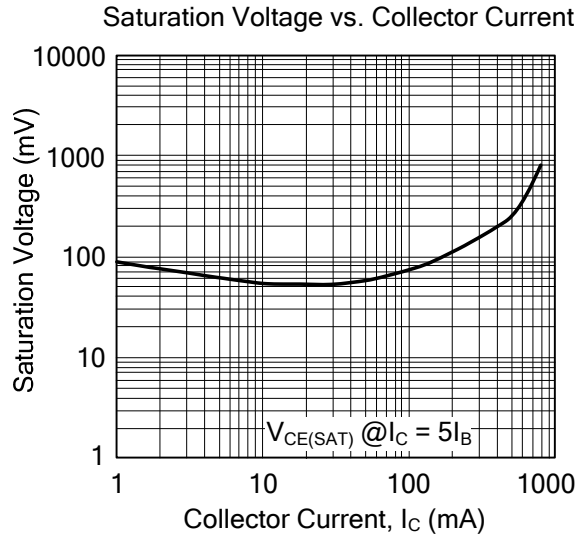
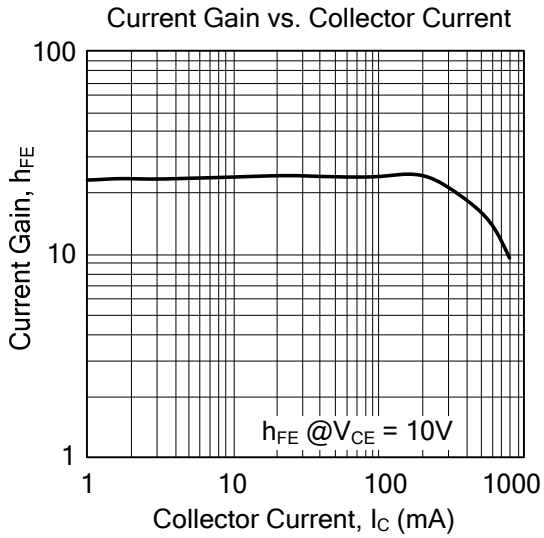
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	BV _{CBO}	I _C =100μA	600			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =10mA	400			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =10μA	6			V
Collector Cutoff Current	I _{CBO}	V _{CB} =600V			10	μA
Collector Cutoff Current	I _{CEO}	V _{CB} =400V			10	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =6V			10	μA
ON CHARACTERISTICS						
DC Current Gain(Note)	h _{FE1}	V _{CE} =10V, I _C =0.1A	10		40	
	h _{FE2}	V _{CE} =10V, I _C =0.5A	10			
Collector-Emitter Saturation Voltage (Note)	V _{CE(SAT)}	I _C =100mA, I _B =20mA			400	mV
		I _C =300mA, I _B =60mA			800	
Base-Emitter Saturation Voltage (Note)	V _{BE(SAT)}	I _C =100mA, I _B =20mA			1	V
SWITCHING CHARACTERISTICS						
Fall Time	t _F	V _{CC} =100V, I _C =0.3A, I _{B1} =-I _{B2} =0.06A			0.6	μS

Note: Pulse Test : Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

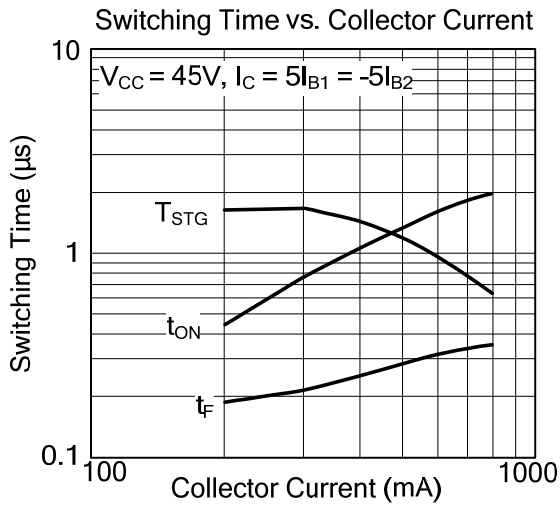
■ CLASSIFICATION OF h_{FE1}

RANK	B1	B2	B3	B4	B5	B6
Range	10 ~ 17	13 ~ 22	18 ~ 27	23 ~ 32	28 ~ 37	33 ~ 40

■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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