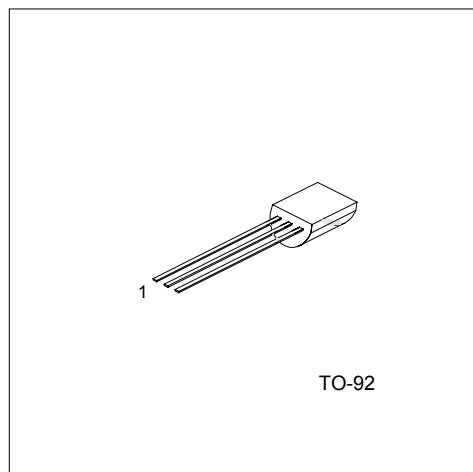


HIGH VOLTAGE TRANSISTOR

FEATURES

- *Collector-Emitter voltage: $V_{CEO}=400V$
- *Collector current up to 300mA
- *Complement to MPSA94
- *Collector Dissipation: $P_c(max)=625mW$



1: BASE 2: EMITTER 3: COLLECTOR

*Pb-free plating product number: MPSA44BL

ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-base voltage	V_{CBO}	500	V
Collector-emitter voltage	V_{CEO}	400	V
Emitter-base voltage	V_{EBO}	6	V
Collector dissipation($T_a=25^{\circ}C$)	P_c	625	mW
Collector dissipation($T_c=25^{\circ}C$)	P_c	1.5	W
Collector current	I_c	300	mA
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55 ~ +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS

($T_j=25^{\circ}C$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV_{CBO}	$I_c=100\mu A, I_B=0$	500			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_c=1mA, I_B=0$	400			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E=100\mu A, I_c=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=400V, I_E=0$			0.1	μA
Collector cut-off current	I_{CES}	$V_{CE}=400V, I_B=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_c=0$			0.1	μA
DC current gain(note)	h_{FE}	$V_{CE}=10V, I_c=1mA$	40		240	
		$V_{CE}=10V, I_c=10mA$	50			
		$V_{CE}=10V, I_c=50mA$	45			
		$V_{CE}=10V, I_c=100mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=1mA, I_B=0.1mA$			0.4	V
		$I_c=10mA, I_B=1mA$			0.5	
		$I_c=50mA, I_B=5mA$			0.75	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c=10mA, I_B=1mA$			0.75	V
Current gain bandwidth product	f_T	$V_{CE}=20V, I_c=10mA, f=100MHz$	50			MHz
Output capacitance	C_{ob}	$V_{CB}=20V, I_E=0, f=1MHz$			7	pF

Note: Pulse test: $PW < 300\mu s$, Duty Cycle $< 2\%$

TYPICAL CHARACTERISTIC CURVES

Fig.1 DC current gain

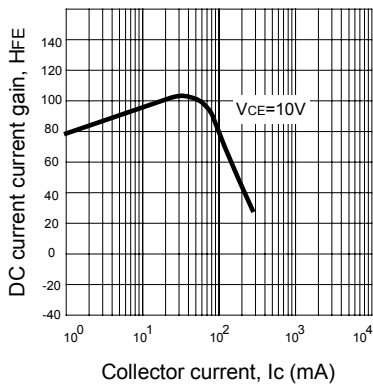


Fig.2 Turn-on switching times

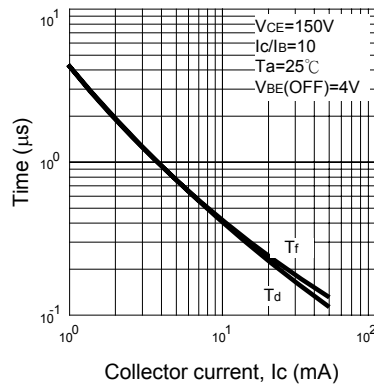


Fig.3 Turn-off switching times

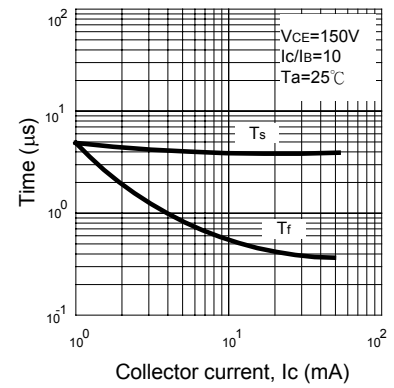


Fig.4 Capacitance

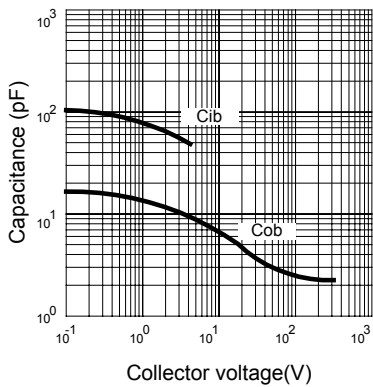


Fig.5 ON Voltage

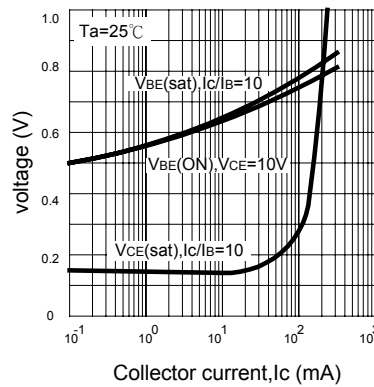


Fig.6 Collector saturation region

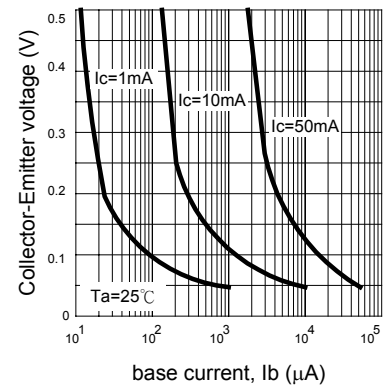


Fig.7 High Frequency current gain

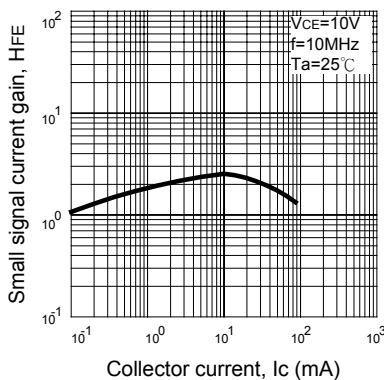
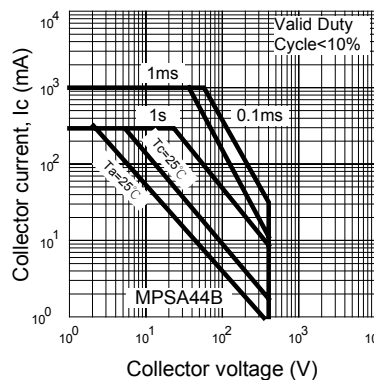


Fig.8 Safe operating area



[查询"MPSA44B"供应商](#)

UTC MPSA44B

NPN EPITAXIAL SILICON TRANSISTOR

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.