

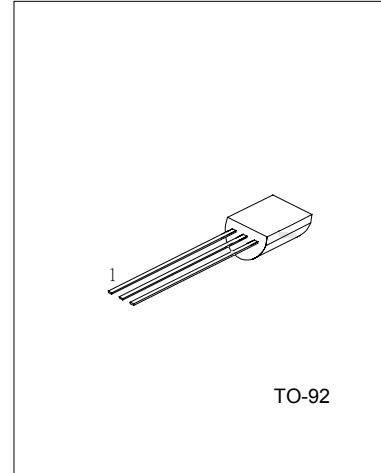
HIGH VOLTAGE TRANSISTOR

FEATURES

- *Collector-Emitter voltage:
 $V_{CEO} = -400V$
- *Collector Dissipation:
 $P_c(\max) = 625mW$
- *Low collector-Emitter saturation voltage

APPLICATIONS

- *Telephone switching
- *High voltage switch



TO-92

1:EMITTER 2:BASE 3:COLLECTOR

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}	-400	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 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}	$I_c = -100\mu A, I_E = 0$	-400			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_c = -1mA, I_B = 0$	-400			V
Collector-emitter breakdown voltage	BV_{CES}	$I_c = -100\mu A, V_{BE} = 0$	-400			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -100\mu A, I_c = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -300V, I_E = 0$			-100	nA
Collector cut-off current	I_{CES}	$V_{CB} = -400V, V_{BE} = 0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_c = 0$			100	nA
DC current gain(note)	h_{FE}	$V_{CE} = -10V, I_c = -1mA$	60		300	
		$V_{CE} = -10V, I_c = -10mA$	70			
		$V_{CE} = -10V, I_c = -50mA$	70			
		$V_{CE} = -10V, I_c = -100mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -10mA, I_B = -1mA$			-0.20	V
		$I_c = -50mA, I_B = -5mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c = -10mA, I_B = -1mA$			-0.75	V
Output capacitance	C_{ob}	$V_{CB} = -20V, I_E = 0, f = 1MHz$			7	pF

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

UTCMP5A94 PNP EPITAXIAL SILICON TRANSISTOR

TYPICAL PARAMETERS PERFORMANCE

Fig.1 Dc current gain

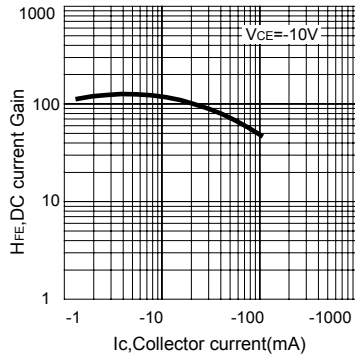


Fig.2 Base-emitter saturation voltage

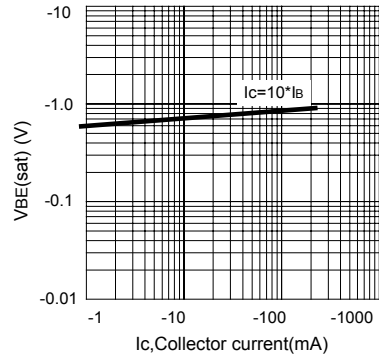


Fig.3 Collector-emitter saturation voltage

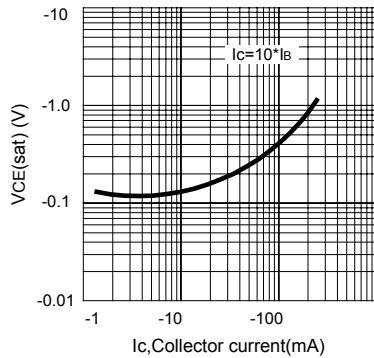


Fig.4 Collector Output capacitance

