

UTC 2SD965 NPN EPITAXIAL SILICON TRANSISTOR

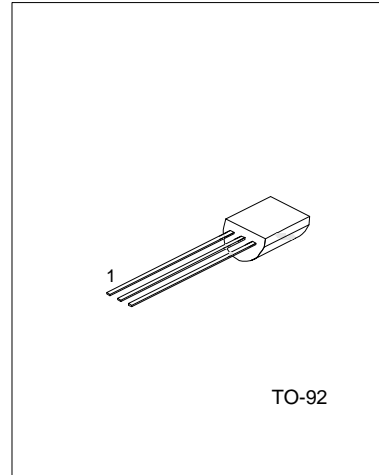
LOW VOLTAGE HIGH CURRENT NPN TRANSISTOR

FEATURES

- *Collector current up to 5A
- * Collector-Emitter voltage up to 20 V

APPLICATIONS

- * Audio amplifier
- * Flash unit of camera
- * Switching circuit



1:EMITTER 2:COLLECTOR 3: BASE

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V _{CB0}	40	V
Collector-emitter voltage	V _{CEO}	20	V
Emitter-base voltage	V _{EBO}	7	V
Collector dissipation(Ta=25°C)	P _c	750	mW
Collector current	I _c	5	A
Junction Temperature	T _j	150	°C
Storage Temperature	T _{STG}	-65 ~ +150	°C

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV _{CB0}	I _c =100μA, I _E =0	40			V
Collector-emitter breakdown voltage	BV _{CEO}	I _c =1mA, I _B =0	20			V
Emitter-base breakdown voltage	BV _{EBO}	I _E =10μA, I _c =0	7			V
Collector cut-off current	I _{CBO}	V _{CB} =10V, I _E =0			100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =7V, I _c =0			100	nA
DC current gain(note)	h _{FE}	V _{CE} =2V, I _c =1mA V _{CE} =2V, I _c =0.5A V _{CE} =2V, I _c =2A	230 150	200	800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =3A, I _B = 0.1A			1	V
Current gain bandwidth product	f _t	V _{CE} =6V, I _c =50mA		150		MHz
Output capacitance	C _{ob}	V _{CB} =20V, I _E =0 f=1MHz			50	pF

UTC UNISONIC TECHNOLOGIES CO. LTD

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CLASSIFICATION OF hFE2

RANK	Q	R	S
RANGE	230-380	340-600	560-800

TYPICAL CHARACTERISTIC CURVES

Fig.1 Static characteristics

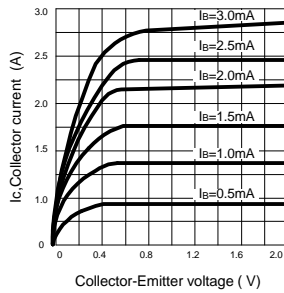


Fig.2 DC current Gain

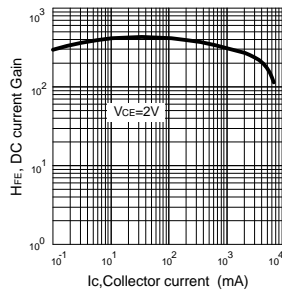


Fig.3 Base-Emitter on Voltage

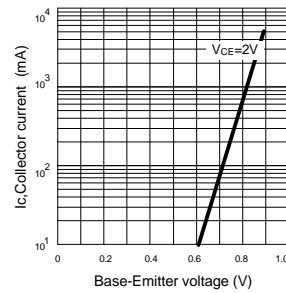


Fig.4 Saturation voltage

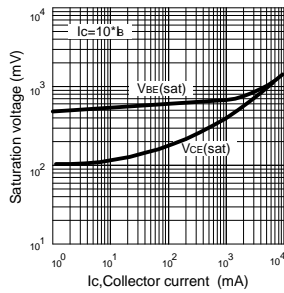


Fig.5 Current gain-bandwidth product

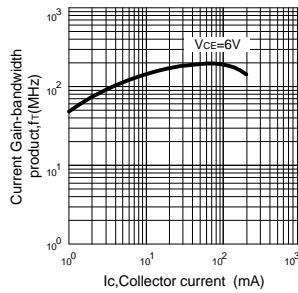


Fig.6 Collector output Capacitance

