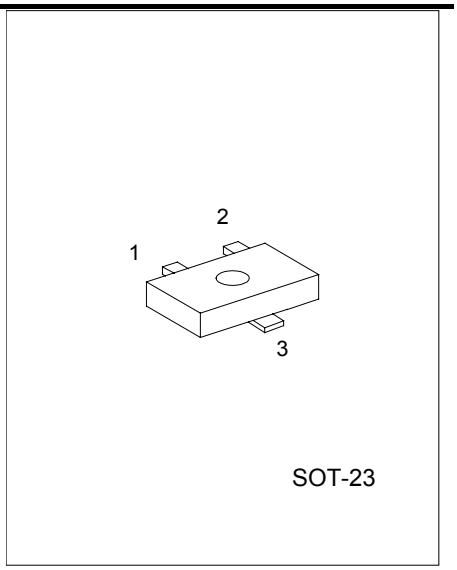
UTC D965SS / D965ASS
NPN EPITAXIAL SILICON TRANSISTOR

LOW VOLTAGE HIGH CURRENT NPN TRANSISTOR



1: EMITTER 2: BASE 3: COLLECTOR

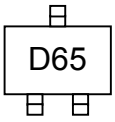
FEATURES

*Collector current up to 5A
* D965SS : Collector-Emitter voltage up to 20 V
* D965ASS : Collector-Emitter voltage up to 30 V

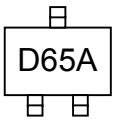
APPLICATIONS

* Audio amplifier
* Flash unit of camera
* Switching circuit

MARKING(D965SS)



MARKING(D965ASS)



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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage D965SS D965ASS	V_{CEO}	 20 30	V
Emitter-base voltage	V_{EBO}	7	V
Collector dissipation(Ta=25°C)	Pc	750	mW
Collector current	Ic	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_{CBO}	I_C=100μA,I_E=0	40			V
Collector-emitter breakdown voltage D965SS D965ASS	BV_{CEO}	I_C=1mA,I_B=0	 20 30			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	

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NPN EPITAXIAL SILICON TRANSISTOR

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-emitter saturation voltage	V_{CE}(sat)	Ic=3A, I_B= 0.1A			1	V
Current gain bandwidth product	f_T	V_{CE}=6V,Ic=50mA		150		MHz
Output capacitance	Cob	V_{CB}=20V,I_E=0 f=1MHz			50	pF

CLASSIFICATION OF hFE2

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

TYPICAL CHARACTERISTIC CURVES

Fig.1 Static characteristics

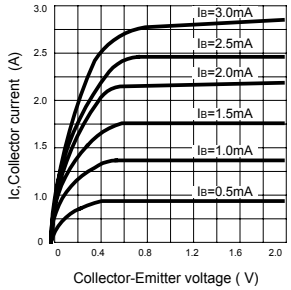

Fig.2 DC current Gain

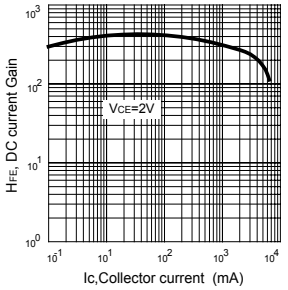

Fig.3 Base-Emitter on Voltage

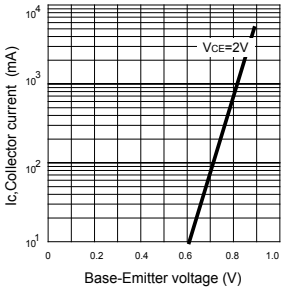

Fig.4 Saturation voltage

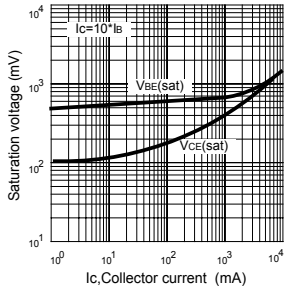

Fig.5 Current gain-bandwidth product

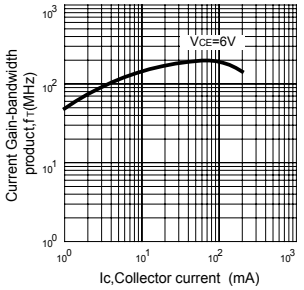

Fig.6 Collector output Capacitance