

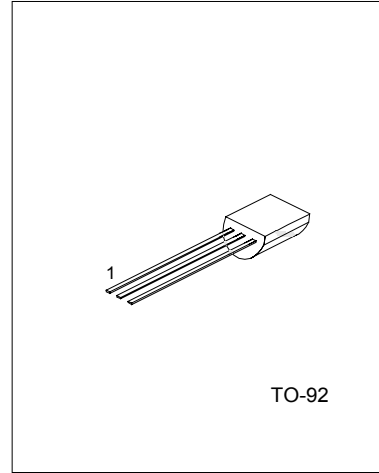
UTC 2SD669/A

NPN EPITAXIAL SILICON TRANSISTOR

BIPOLAR POWER GENERAL PURPOSE TRANSISTOR

APPLICATIONS

* Low frequency power amplifier complementary pair with UTC 2SB649/A



1:EMITTER 2:COLLECTOR 3:BASE

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V _{CB0}	180	V
Collector-emitter voltage	V _{CEO}	120	V
2SD669		160	
2SD669A			
Emitter-base voltage	V _{EB0}	5	V
Collector current	I _c	1.5	A
Collector peak current	I _{c(peak)}	3	A
Collector power dissipation	P _c	1	W
Collector power dissipation (T _c =25°C)	P _c	20	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector to bse breakdown voltage	V _{(BR)CBO}	I _c =1mA, I _E =0	180			V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _c =10mA, R _{BE} =∞	120			V
2SD669			160			
2SD669A						
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _c =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =160V, I _E =0			10	μA
DC current gain	2SD669	h _{FE1}	V _{CE} =5V, I _c =150mA (note)	60		320
		h _{FE2}	V _{CE} =5V, I _c =500mA (note)	30		
	2SD669A	h _{FE1}	V _{CE} =5V, I _c =150mA (note)	60		200
		h _{FE2}	V _{CE} =5V, I _c =500mA (note)	30		
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =600mA, I _B =50mA (note)			1	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _c =150mA (note)			1.5	V

UTC UNISONIC TECHNOLOGIES CO. LTD

UTC 2SD669/A

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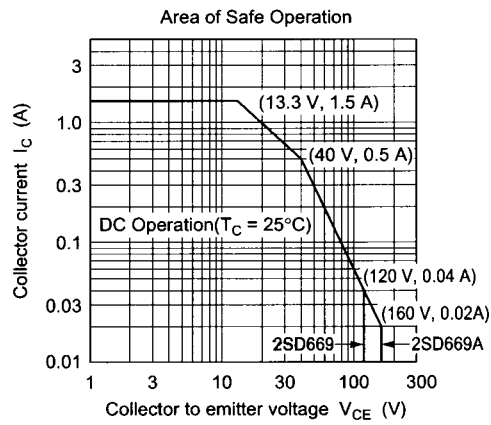
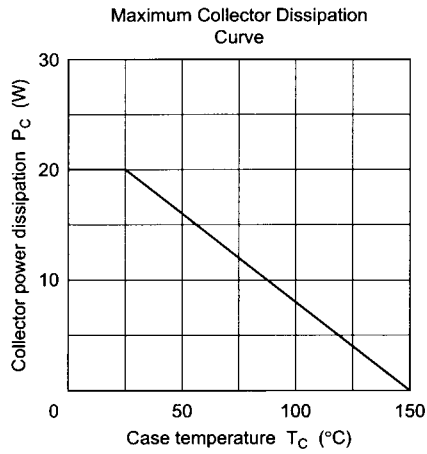
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Current gain bandwidth product	f_T	$V_{CE}=5V, I_C=150mA$ (note)		140		MHz
Output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		14		pF

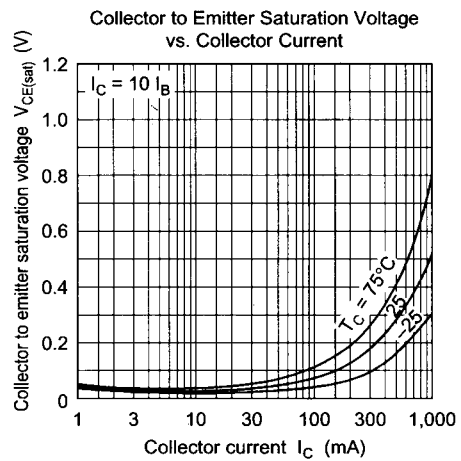
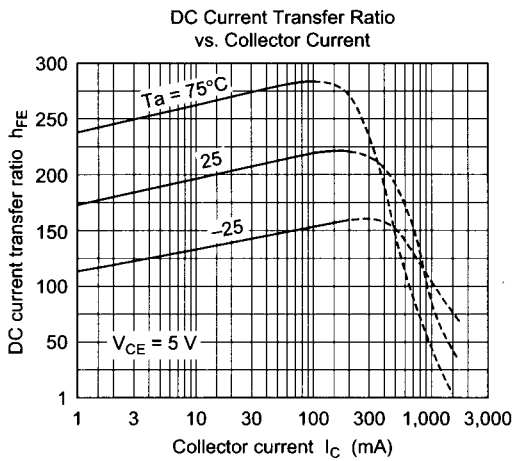
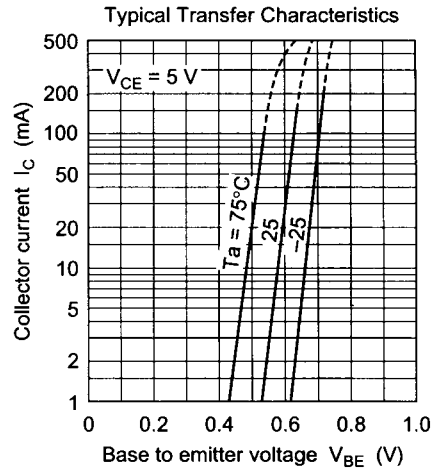
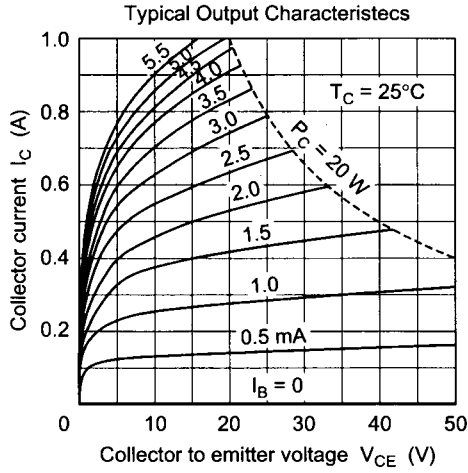
Note: Pulse test.

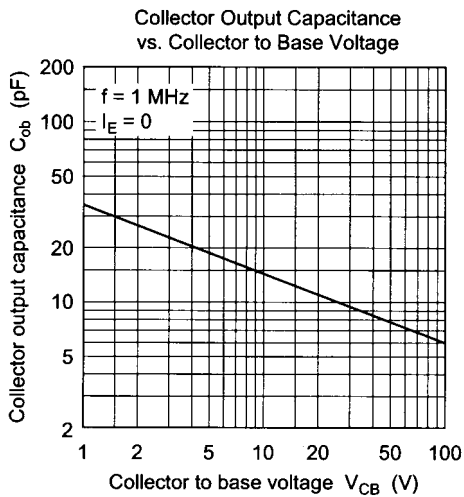
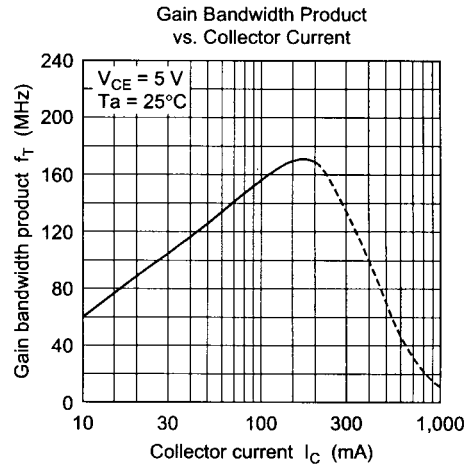
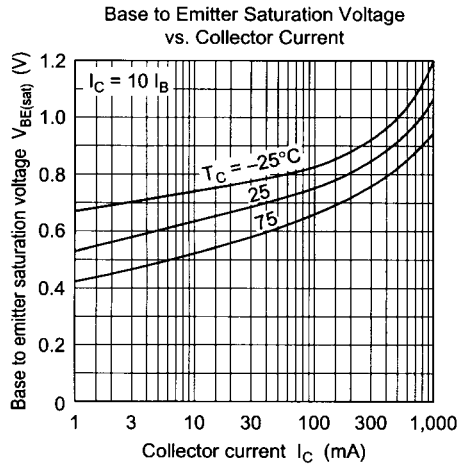
CLASSIFICATION OF h_{FE1}

RANK	B	C	D
RANGE (2SD669)	60-120	100-200	160-320
RANGE (2SD669A)	60-120	100-200	160-320

TYPICAL PARAMETERS PERFORMANCE







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