

Features

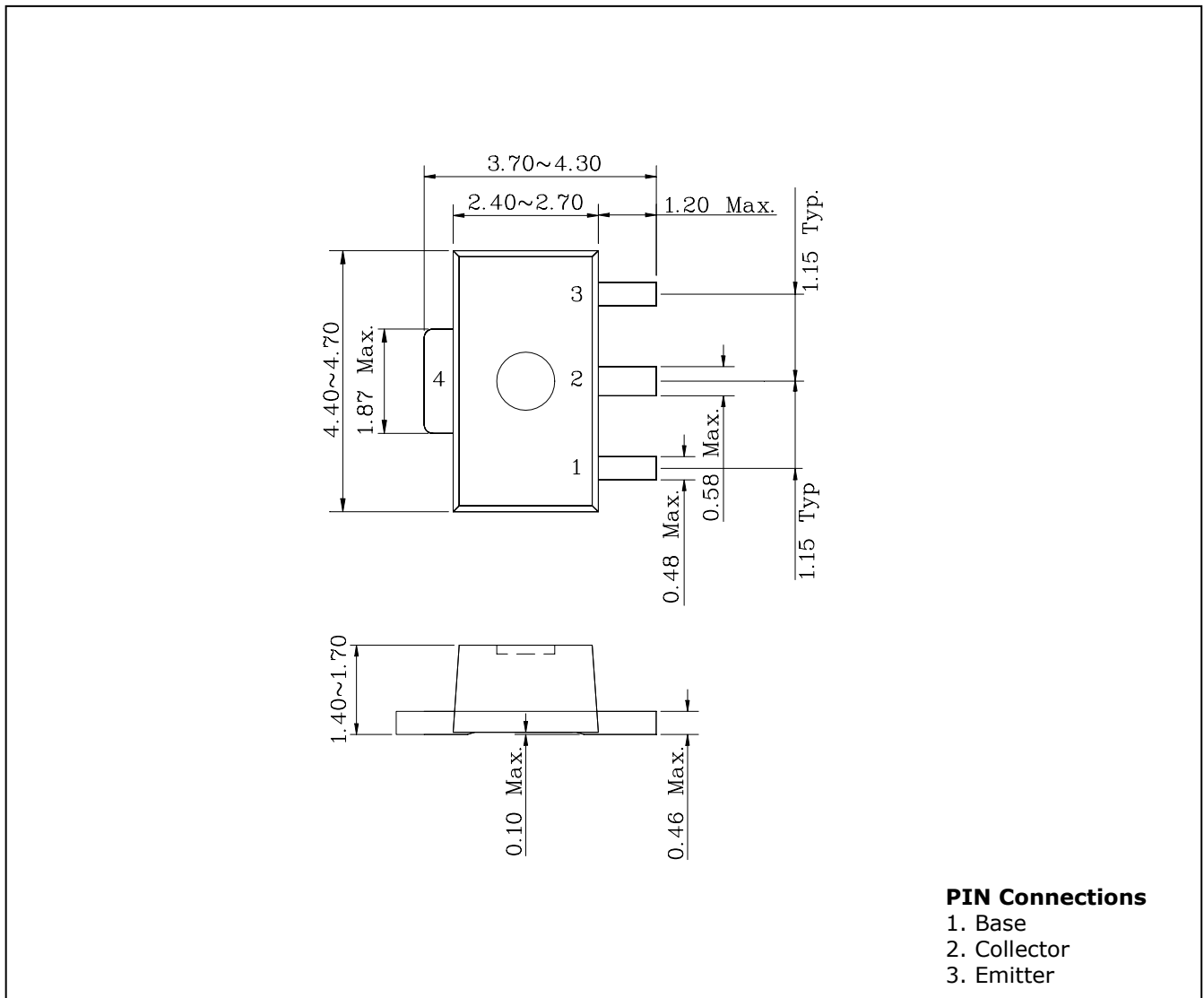
- Extremely low collector-to-emitter saturation voltage
($V_{CE(SAT)} = 0.2V$ Typ. @ $I_C/I_B = 1A/50\text{ mA}$)
- Suitable for low voltage large current drivers
- Complementary pair with DP200F
- Switching Application

Ordering Information

Type NO.	Marking	Package Code
DN200F	N04	SOT-89

Outline Dimensions

unit : mm



Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	15	V
Collector-Emitter voltage	V_{CEO}	12	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	2	A
Collector power dissipation	P_C	0.5	W
	P_C^*	2	
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~150	°C

* : When mounted on 40×40×0.8mm ceramic substrate

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	$I_C=50 \mu A, I_E=0$	15	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C=1 mA, I_B=0$	12	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E=50 \mu A, I_C=0$	5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=12V, I_E=0$	-	-	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	0.1	μA
DC current gain	h_{FE1}	$V_{CE}=1V, I_C=100 mA$	200	-	450	-
	h_{FE2}	$V_{CE}=1V, I_C=2A$	40	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=1A, I_B=50 mA$	-	-	0.3	V
Base-Emitter saturation voltage	$V_{BE(sat)}$	$I_C=1A, I_B=50 mA$	-	-	1.2	V
Transition frequency	f_T	$V_{CE}=5V, I_C=50 mA$	-	260	-	MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1 MHz$	-	5	-	pF

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

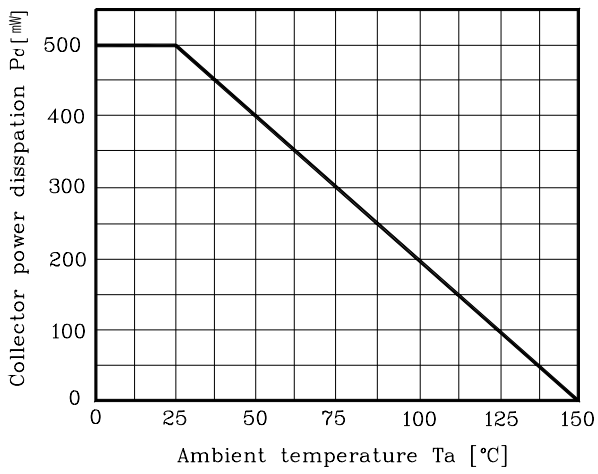


Fig. 2 $I_C - V_{BE}$

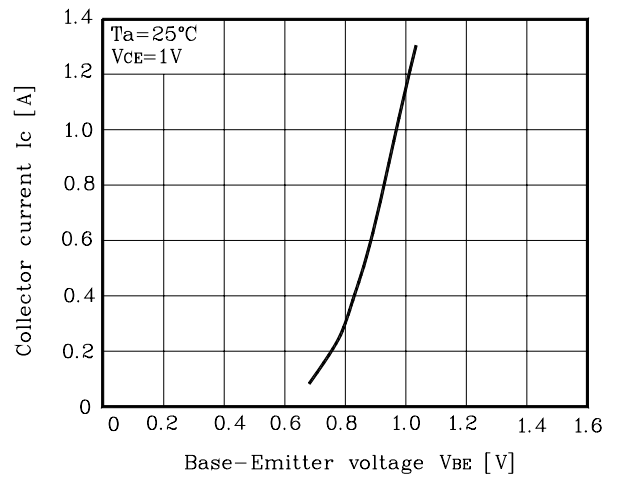


Fig. 3 $h_{FE} - I_C$

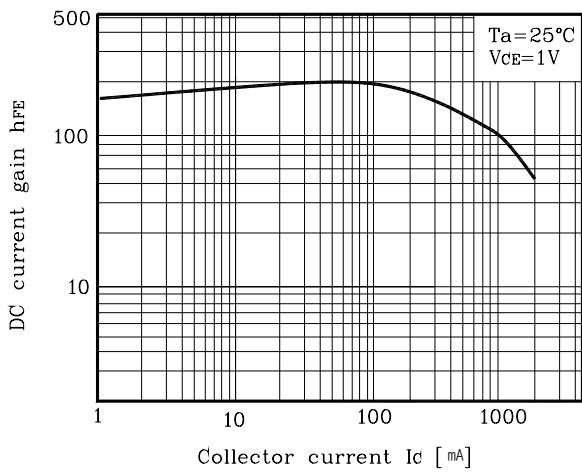
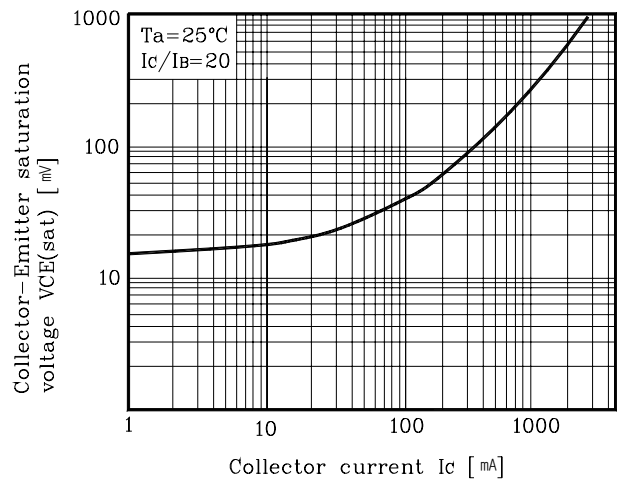


Fig. 4 $V_{CE(sat)} - I_C$



These AUK products are intended for usage in general electronic equipments(Office and communication equipment, measuring equipment, domestic electrification, etc.).

Please make sure that you consult with us before you use these AUK products in equipments which require high quality and/or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, traffic signal, combustion central, all types of safety device, etc.).

AUK cannot accept liability to any damage which may occur in case these AUK products were used in the mentioned equipments without prior consultation with AUK.