KSC2682OS Datasheet

DiGi Electronics Part Number	KSC2682OS-DG
Manufacturer	onsemi
Manufacturer Product Number	KSC2682OS
Description	TRANS NPN 180V 0.1A TO126-3
Detailed Description	Bipolar (BJT) Transistor NPN 180 V 100 mA 200MHz 1.2 W Through Hole TO-126-3

https://www.DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
KSC2682OS	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	100 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
180 V	500mV @ 5mA, 50mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
1µA (ICBO)	100 @ 10mA, 5V
Power - Max:	Frequency - Transition:
1.2 W	200MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-225AA, TO-126-3	TO-126-3
Base Product Number:	
KSC2682	

Environmental & Export classification

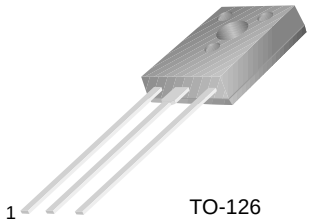
Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.29.0075

FAIRCHILD SEMICONDUCTOR™

KSC2682

Audio Frequency Power Amplifier

- Complement to KSA1142



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TO-126

1. Emitter 2.Collector 3.Base

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	180	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	100	mA
P_C	Collector Dissipation (T_a=25°C)	1.2	W
P_C	Collector Dissipation (T_C=25°C)	8	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	V_{CB} = 180V, I_E = 0			1.0	μA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 3V, I_C= 0			1.0	μA
h_{FE1} h_{FE2}	* DC Current Gain	V_{CE} = 5V, I_C = 1mA V_{CE} = 5V, I_C = 10mA	90 100	190 200	 320	
V_{CE}(sat)	* Collector-Emitter Saturation Voltage	I_C = 50mA, I_B = 5mA		0.12	0.5	V
V_{BE}(sat)	* Base-Emitter Saturation Voltage	I_C = 50mA, I_B = 5mA		0.8	1.5	V
f_T	Current Gain Bandwidth Product	V_{CE} = 10V, I_C = 20mA		200		MHz
C_{ob}	Output Capacitance	V_{CB} = 10V, I_E = 0 f = 1MHz		3.2	5.0	pF
NF	Noise Figure	V_{CE} = 10V, I_C = 1mA R_S = 10KΩ, f = 1kHz		4		dB

* Pulse Test: PW≤350μs, Duty Cycle≤2%

h_{FE} Classificntion

Classification	O	Y
h_{FE2}	100 ~ 200	160 ~ 320

Typical Characteristics

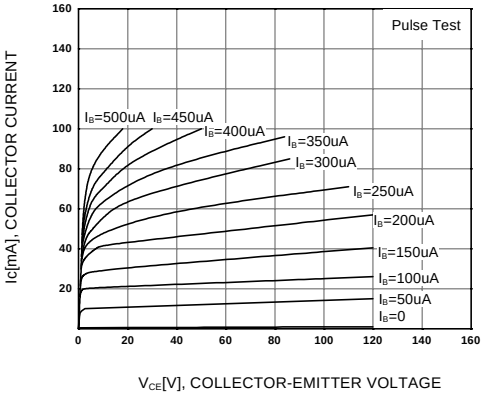


Figure 1. Static Characteristic

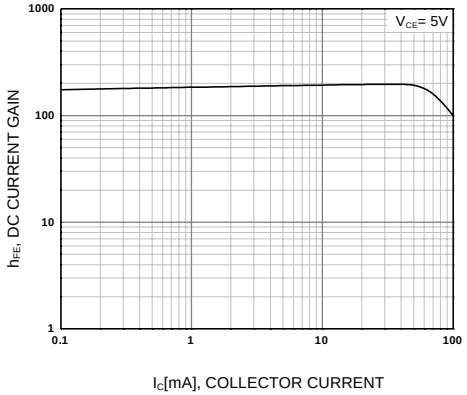


Figure 2. DC current Gain

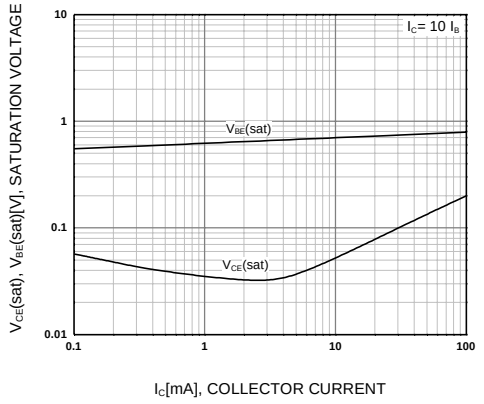


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

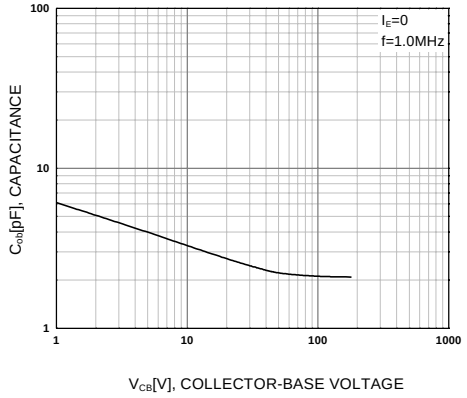


Figure 4. Collector Output Capacitance

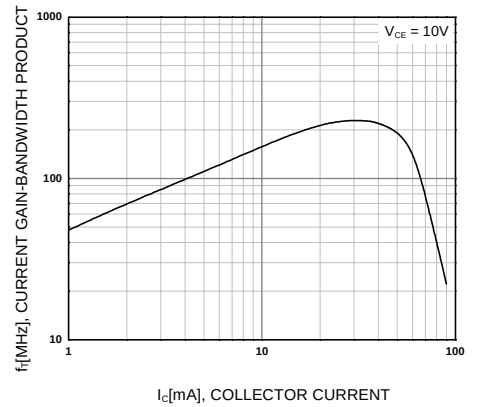


Figure 5. Current Gain Bandwidth Product

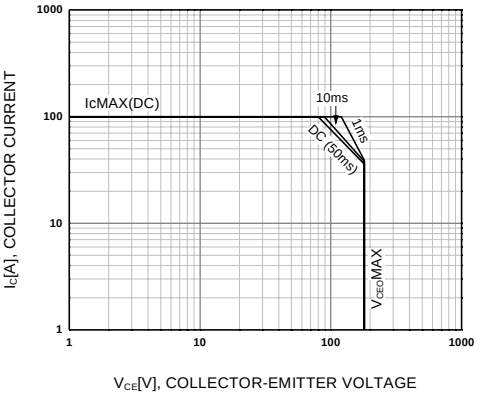


Figure 6. Safe Operating Area

Typical Characteristics (Continued)

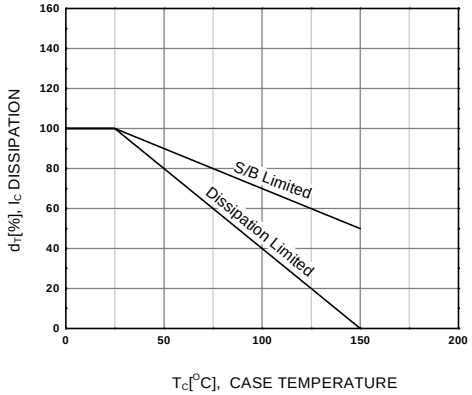


Figure 7. Derating Curve of Safe Operating Area

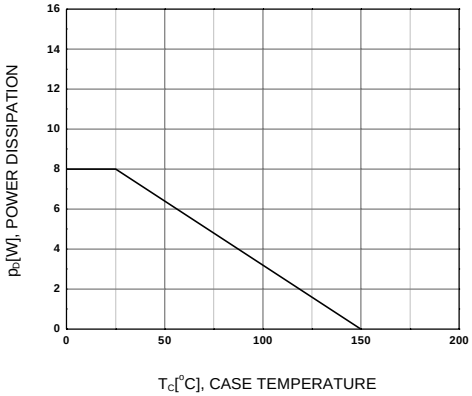
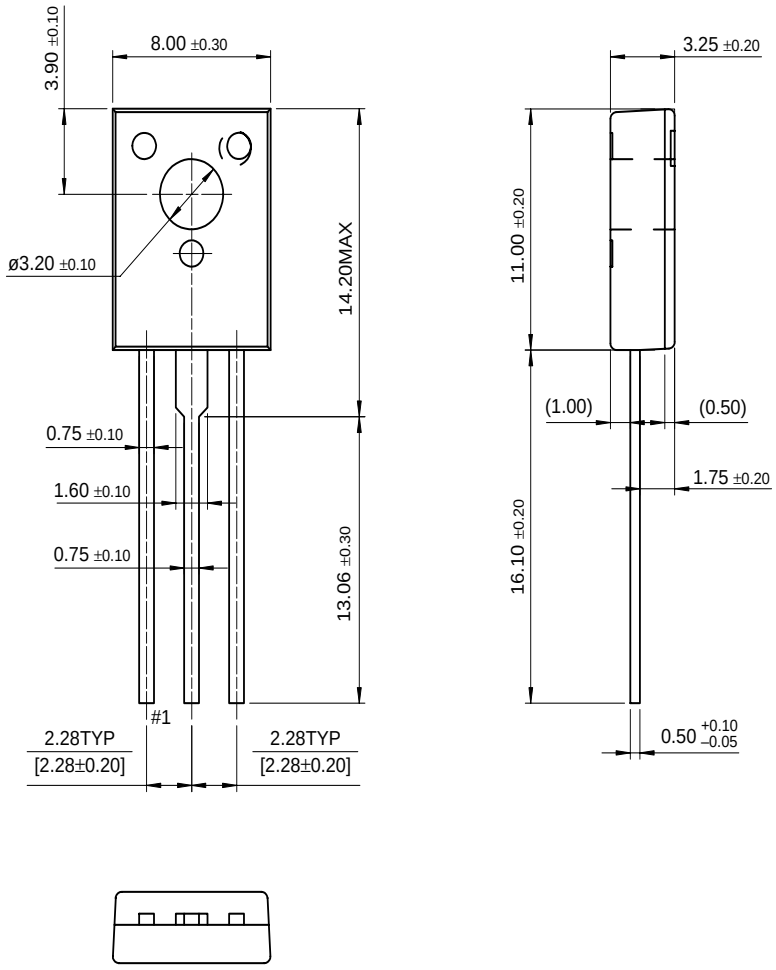


Figure 8. Power Derating

Package Demensions

TO-126



Dimensions in Millimeters

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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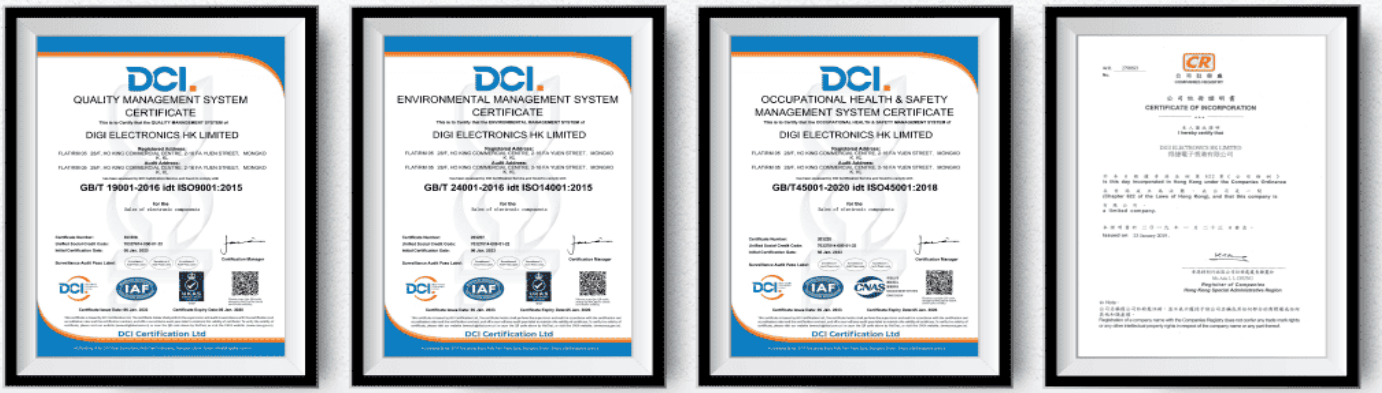

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