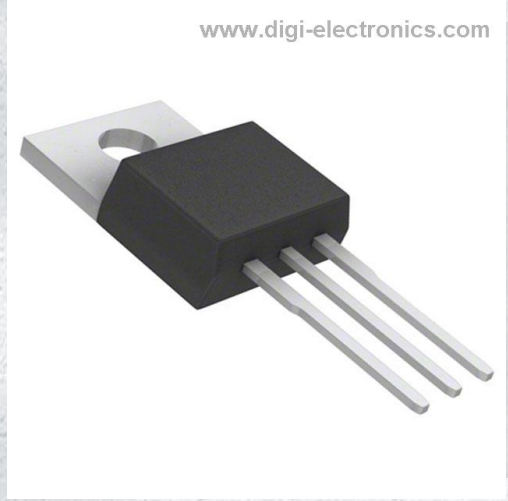
KSD880OPATU Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	KSD880OPATU-DG
Manufacturer	onsemi
Manufacturer Product Number	KSD880OPATU
Description	TRANS NPN 60V 3A TO220-3
Detailed Description	Bipolar (BJT) Transistor NPN 60 V 3 A 3MHz 30 W Through Hole TO-220-3

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
KSD880OPATU	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	3 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
60 V	1V @ 300mA, 3A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100µA (ICBO)	60 @ 500mA, 5V
Power - Max:	Frequency - Transition:
30 W	3MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-220-3	TO-220-3
Base Product Number:	
KSD880	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.29.0095

Is Now Part of

ON Semiconductor®

To learn more about ON Semiconductor, please visit our website at
www.onsemi.com

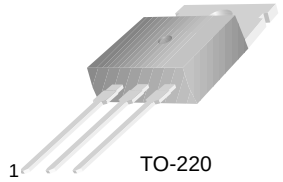
Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

FAIRCHILD SEMICONDUCTOR™

KSD880

Low Frequency Power Amplifier

- Complement to KSB834



TO-220

1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	3	A
I_B	Base Current	0.3	A
P_C	Collector Dissipation (T_C=25°C)	30	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} = 60V, I_E = 0			100	µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 7V, I_C = 0			100	µA
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 50mA, I_B = 0	60			V
h_{FE1} h_{FE2}	DC Current Gain	V_{CE} = 5V, I_C = 0.5A V_{CE} = 5V, I_C = 3A	60 20		300	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 3A, I_B = 0.3A		0.4	1	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = 5V, I_C = 0.5A		0.7	1	V
f_T	Current Gain Bandwidth Product	V_{CE} = 5V, I_C = 0.5A		3		MHz
C_{ob}	Output Capacitance	V_{CB} = 10V, I_E = 0, f = 1MHz		70		pF
t_{ON}	Turn ON Time	V_{CC} = 30V, I_C = 1A I_{B1} = - I_{B2} = 0.2A R_L = 30Ω		0.8		µs
t_{STG}	Storage Time			1.5		µs
t_F	Fall Time			0.8		µs

h_{FE} Classification

Classification	O	Y	G
h_{FE1}	60 ~ 120	100 ~ 200	150 ~ 300

Typical Characteristics

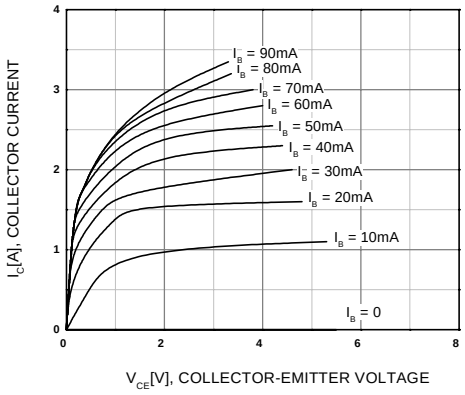


Figure 1. Static Characteristic

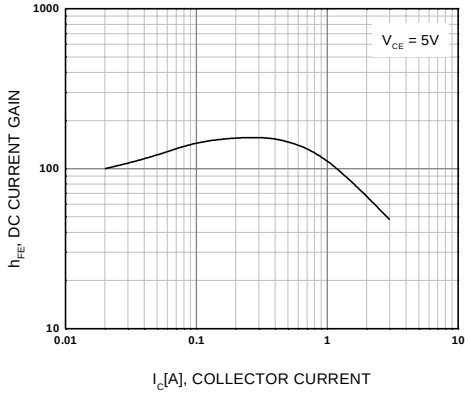


Figure 2. DC current Gain

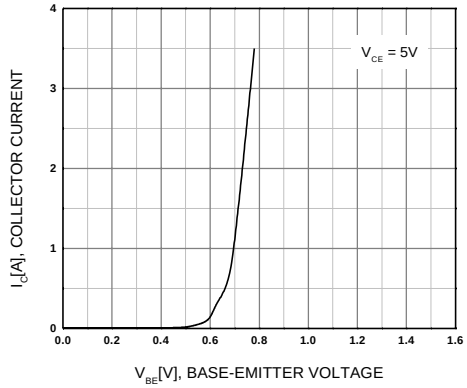


Figure 3. Base-Emitter On Voltage

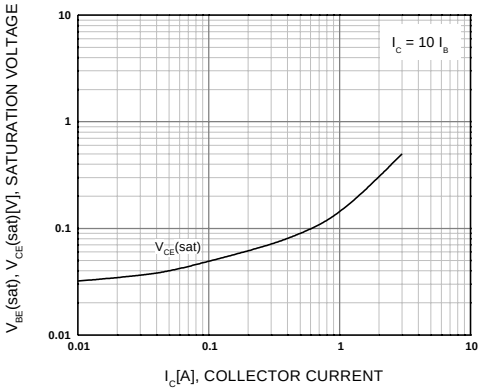


Figure 4. Collector-Emitter Saturation Voltage vs Collector Current

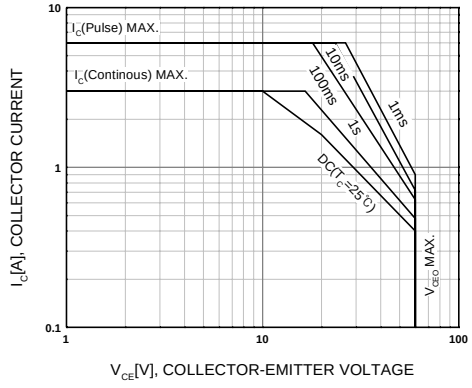


Figure 5. Safe Operating Area

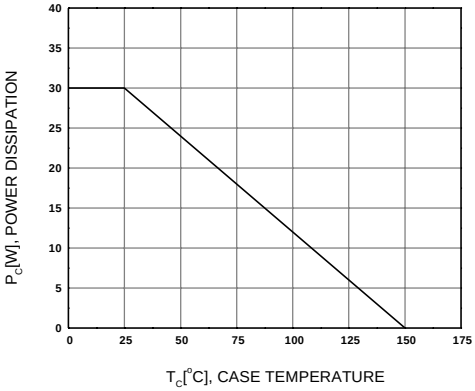
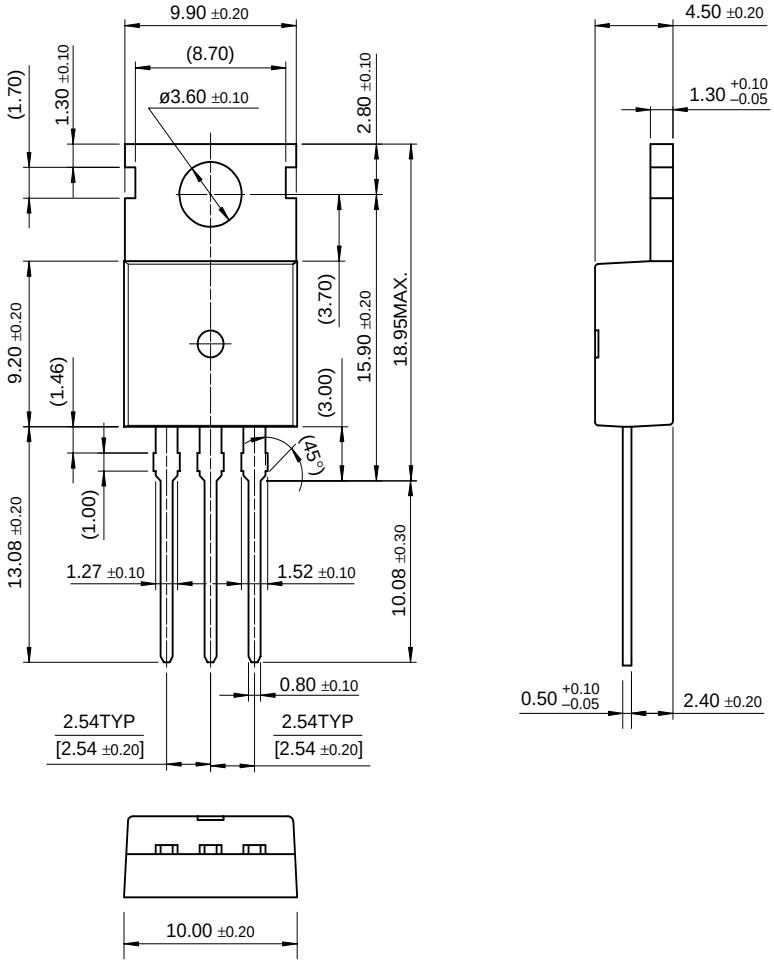


Figure 6. Power Derating

Package Demensions

TO-220



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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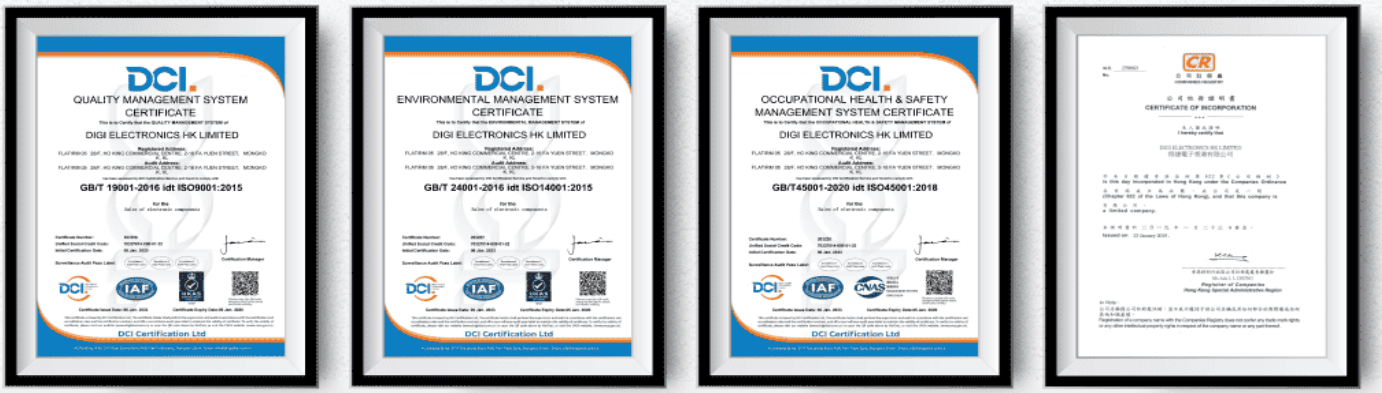

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