# onsemi

# NPN Epitaxial Silicon Transistor

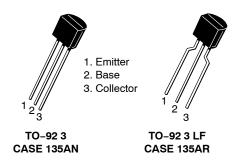
# KSD471A

#### Features

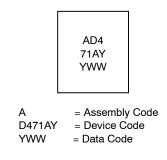
- Audio Frequency Power Amplifier
- Complementary to KSB1151
- Collector Current:  $I_C = 1 A$
- Collector Power Dissipation:  $P_C = 800 \text{ mW}$
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)

<b>ABSOLUTE MAXIMUM RATINGS</b> (T <sub>A</sub> = 25°C unless otherwise noted)				
Symbol	Parameter	Value	Unit	
V <sub>CBO</sub>	Collector-Base Voltage	40	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V	
V <sub>EBO</sub>	Emitter-Base Voltage	5	V	
۱ <sub>C</sub>	Collector Current	1	А	
P <sub>C</sub>	Collector Power Dissipation	800	mW	
TJ	Junction Temperature	150	°C	
T <sub>STG</sub>	Storage Temperature	–55 to +150	°C	

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.



#### MARKING DIAGRAM



#### ORDERING INFORMATION

See detailed ordering and shipping information on page 3 of this data sheet.

NOTE: Some of the devices on this data sheet have been **DISCONTINUED**. Please refer to the table on page 3.

### **ELECTRICAL CHARACTERISTICS** ( $T_A = 25^{\circ}C$ unless otherwise noted)

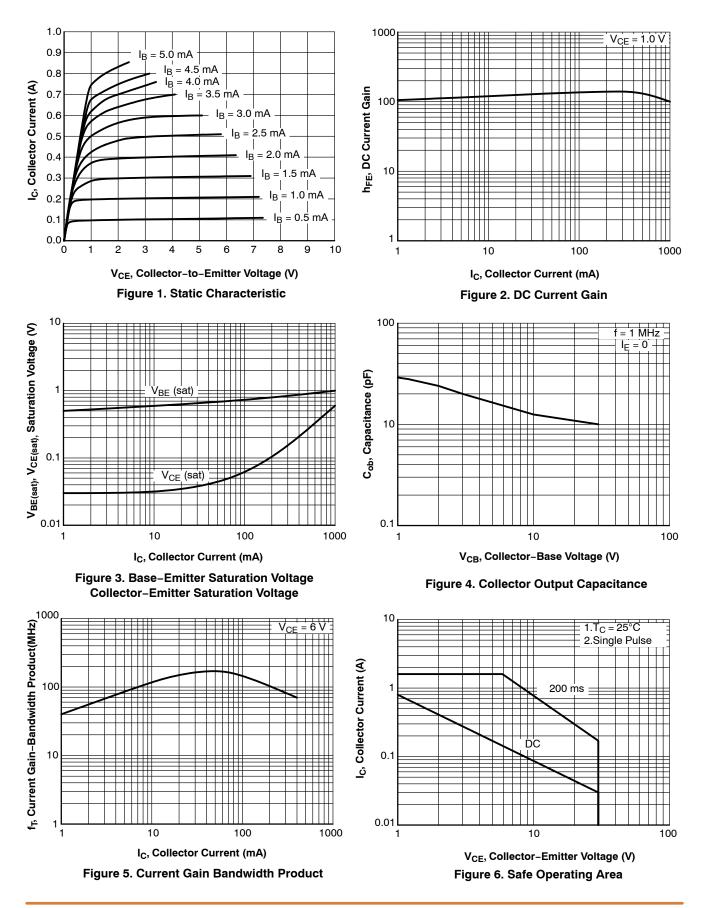
Symbol	Parameter	Test Condition	Min	Тур	Max	Unit
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 100 μA, I <sub>E</sub> = 0	40	-	-	V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	30	-	-	V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 100 μA, I <sub>C</sub> = 0	5	-	-	V
I <sub>CBO</sub>	Collector Cut-off Current	$V_{CB} = 30 \text{ V}, I_E = 0$	-	-	0.1	μA
h <sub>FE</sub>	DC Current Gain	$V_{CE} = 1 \text{ V}, I_{C} = 100 \text{ mA}$	120	-	240	-
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1 A, I <sub>B</sub> = 0.1 A	-	-	0.5	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> = 1 A, I <sub>B</sub> = 0.1 A	-	-	1.2	V
f <sub>T</sub>	Current Gain BandWidth Product	$V_{CE} = 6 V, I_{C} = 10 mA$	-	130	-	MHz
C <sub>ob</sub>	Output Capacitance	$V_{CB}$ = 6 V, $I_E$ = 0, f = 1 MHz	-	16	-	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

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## KSD471A

### **TYPICAL CHARACTERISTICS**



## KSD471A

#### **ORDERING INFORMATION**

Device	Package	Shipping
KSD471ACYTA	TO-92-3 (Pb-Free)	10000 BLKBG
KSD471AYTA	TO-92-3LF (Pb-Free)	2000 FNFLD

#### DISCONTINUED (Note 1)

KSD471ACYBU	TO-92-3LF	2000 FNFLD
	(Pb-Free)	

1. **DISCONTINUED:** This device is not recommended for new design. Please contact your **onsemi** representative for information. The most current information on this device may be available on <u>www.onsemi.com</u>.

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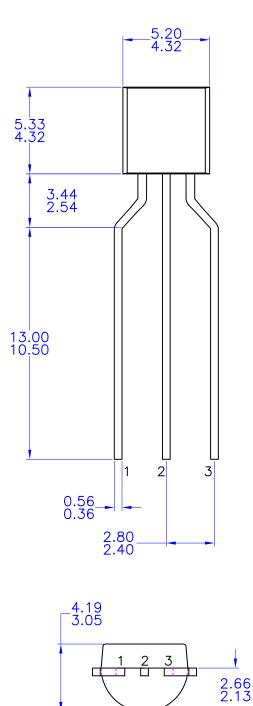
TO-92 3 4.825x4.76 CASE 135AN ISSUE O DATE 31 JUL 2016 \_5.20\_ \_\_\_\_\_\_ 5.33 (0.81) 15.62 2 3 1 0.52 0.56 0.36 1.27 NOTES: UNLESS OTHERWISE SPECIFIED 2.54 A) DRAWING WITH REFERENCE TO JEDEC TO-92 RECOMMENDATIONS. B) ALL DIMENSIONS ARE IN MILLIMETERS. с́э DRAWING CONFORMS TO ASME Y14.5M-2009. 4.19 3.05 2.66 2.13 2 3 1 Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red. **DOCUMENT NUMBER:** 98AON13880G **DESCRIPTION:** TO-92 3 4.825X4.76 PAGE 1 OF 1

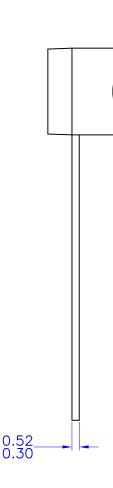
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DATE 30 SEP 2016





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