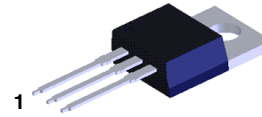


# NPN Epitaxial Silicon Transistor

## KSC2073



TO-220-3LD  
CASE 340AT

### Features

- TV Vertical Deflection Output
- Complement to KSA940
- Collector–Base Voltage :  $V_{CBO} = 150\text{ V}$
- These Devices are Pb–Free and Halide Free

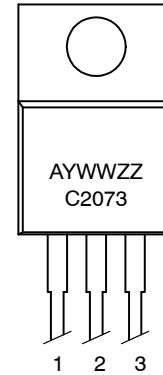
### ABSOLUTE MAXIMUM RATINGS

( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

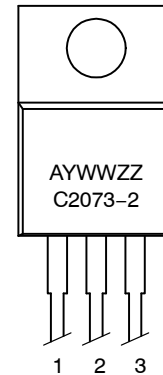
Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector–Base Voltage	150	V
$V_{CEO}$	Collector–Emitter Voltage	150	V
$V_{EBO}$	Emitter–Base Voltage	5	V
$I_C$	Collector Current	1.5	A
$P_C$	Collector Dissipation ( $T_C=25^\circ\text{C}$ )	25	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	$-55 \sim 150$	$^\circ\text{C}$

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 DIAGRAMS



1: Base  
2: Collector  
3: Emitter



1: Base  
2: Collector  
3: Emitter

A = Assembly Plant Code  
YWW = 3–Digit Date Code  
(Year and Week)  
ZZ = 2–Digit Lot Code  
C2073, C2073–2 = Specific Device Code

### ORDERING INFORMATION

See detailed ordering, marking and shipping information on page 2 of this data sheet.

NOTE: Some of the devices on this data sheet have been **DISCONTINUED**. Please refer to the table on page 2.

# KSC2073

## ELECTRICAL CHARACTERISTICS

( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = 500 \mu\text{A}, I_E = 0$	150	-	-	V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10 \text{ mA}, I_B = 0$	150	-	-	V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = 500 \mu\text{A}, I_C = 0$	5	-	-	V
$I_{CBO}$	Collector Cut-Off Current	$V_{CB} = 120 \text{ V}, I_E = 0$	-	-	10	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$V_{CE} = 10 \text{ V}, I_C = 0.5 \text{ A}$	40	75	140	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$	-	-	1	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = 10 \text{ V}, I_C = 0.5 \text{ A}$	-	4	-	MHz
$C_{ob}$	Output Capacitance	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	-	50	-	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.

## $h_{FE}$ CLASSIFICATION

Classification	H1	H2
$h_{FE}$	40 ~ 80	60 ~ 125

## ORDERING INFORMATION

Device	Package	Marking	Shipping
KSC2073TU	TO-220-3LD (Pb-Free)	C2073	1000 Units / Tube

## DISCONTINUED (Note 1)

KSC2073H2TU	TO-220-3LD (Pb-Free)	C2073-2	1000 Units / Tube
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- 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 [www.onsemi.com](http://www.onsemi.com).

TYPICAL PERFORMANCE CHARACTERISTICS

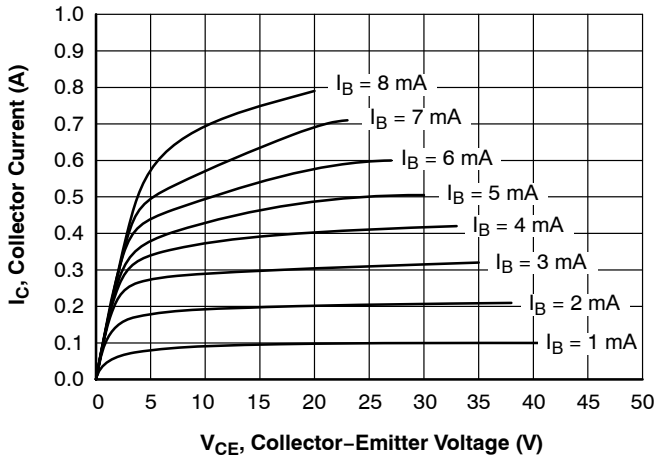


Figure 1. Static Characteristic

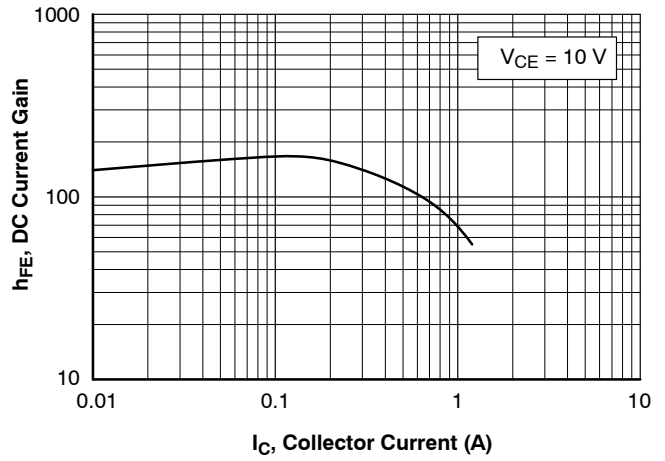


Figure 2. DC Current Gain

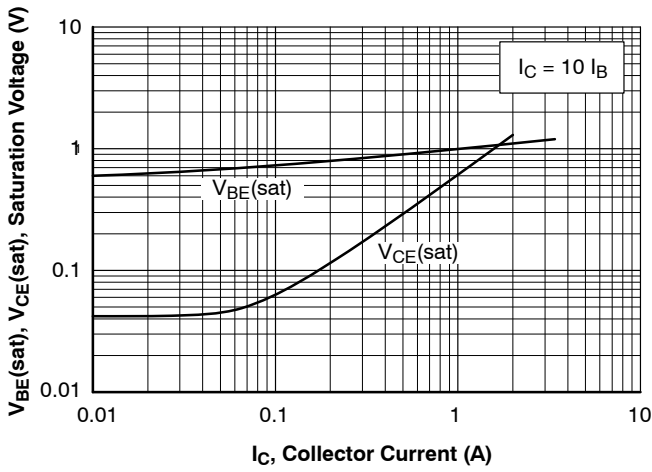


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

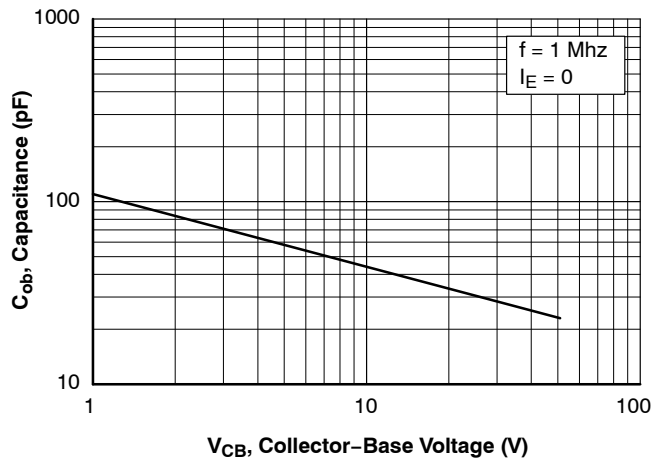


Figure 4. Collector-Emitter On Voltage

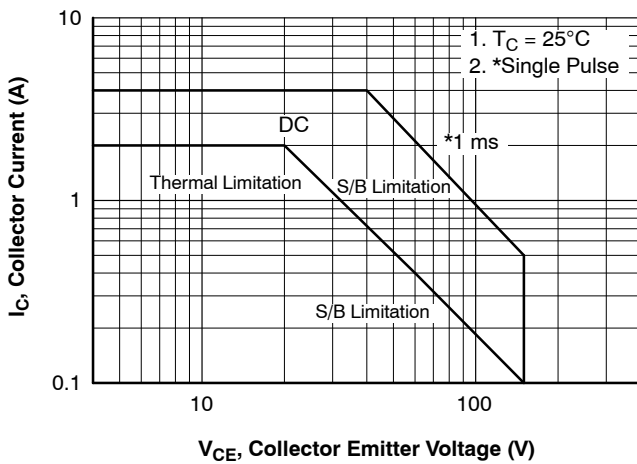


Figure 5. Safe Operating Area

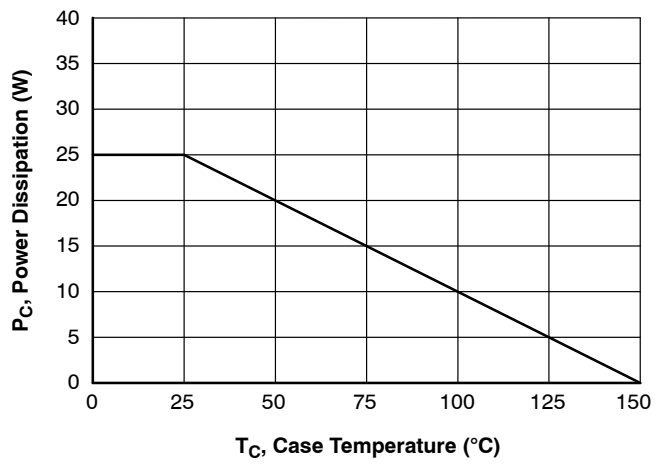
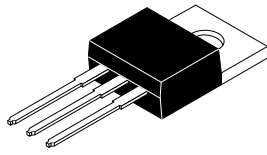


Figure 6. Power Derating

# MECHANICAL CASE OUTLINE

## PACKAGE DIMENSIONS

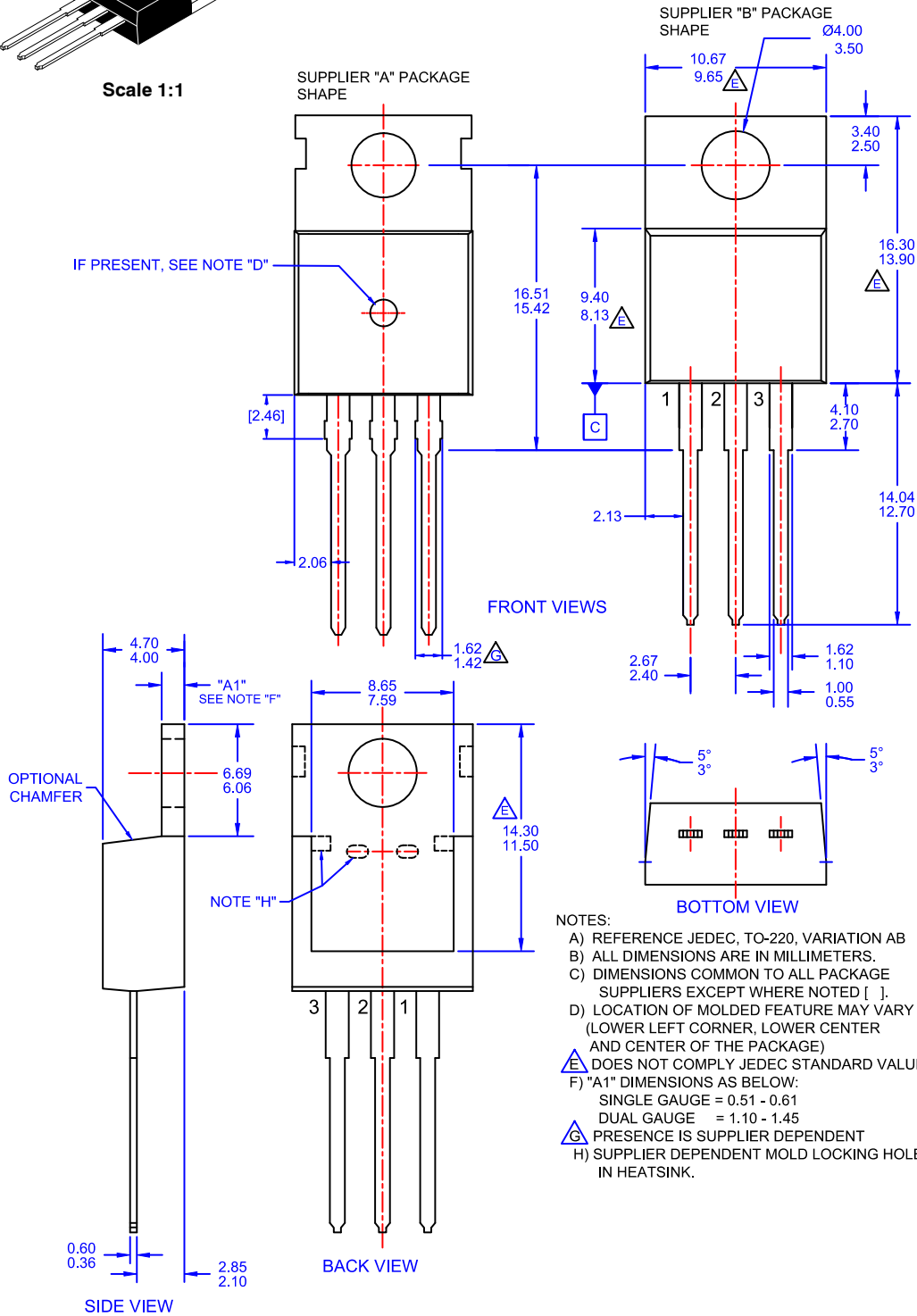
ON Semiconductor®



Scale 1:1

### TO-220-3LD CASE 340AT ISSUE A

DATE 03 OCT 2017



- NOTES:
- A) REFERENCE JEDEC, TO-220, VARIATION AB
  - B) ALL DIMENSIONS ARE IN MILLIMETERS.
  - C) DIMENSIONS COMMON TO ALL PACKAGE SUPPLIERS EXCEPT WHERE NOTED [ ].
  - D) LOCATION OF MOLDED FEATURE MAY VARY (LOWER LEFT CORNER, LOWER CENTER AND CENTER OF THE PACKAGE)
  - E) DOES NOT COMPLY JEDEC STANDARD VALUE.
  - F) "A1" DIMENSIONS AS BELOW:  
 SINGLE GAUGE = 0.51 - 0.61  
 DUAL GAUGE = 1.10 - 1.45
  - G) PRESENCE IS SUPPLIER DEPENDENT
  - H) SUPPLIER DEPENDENT MOLD LOCKING HOLES IN HEATSINK.

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<b>DESCRIPTION:</b>	<b>TO-220-3LD</b>	<b>PAGE 1 OF 1</b>

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