

PNP Silicon Epitaxial Transistor

KSB834W

Features

- Complement to KSD880W
- This is a Pb-Free Device

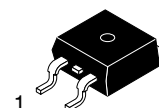
Applications

- Low Frequency Power Amplifier

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Ratings	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	-0.5	A
P_C	Collector Dissipation ($T_C = 25^\circ\text{C}$)	30	W
P_C	Collector Dissipation ($T_A = 25^\circ\text{C}$)	1.5	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

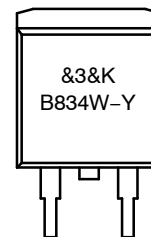
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.



1. Base
2. Collector
3. Emitter

D²PAK-3 (TO-263, 3-LEAD)
CASE 418AJ

MARKING DIAGRAM



&3 = Date Code Format
 &K = Lot Run Traceability Code
 B834W-Y = Specific Device Code

ORDERING INFORMATION

Device	Package	Shipping [†]
KSB834WYTM	D2PAK-3 (Pb-Free)	800 Units / Tape & Reel

[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

KSB834W

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
I_{CBO}	Collector Cut-off Current	$V_{CB} = -60\text{ V}, I_E = 0$			-100	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -7\text{ V}, I_C = 0$			-100	μA
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -50\text{ mA}, I_B = 0$	-60			V
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$ $V_{CE} = -5\text{ V}, I_C = -3\text{ A}$	60 20		200	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{ A}, I_B = -0.3\text{ A}$		-0.5	-1	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$		-0.7	-1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$		9		MHz
C_{cb}	Collector Output Capacitance	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		150		pF
t_{ON}	Turn On Time	$V_{CC} = -30\text{ V}, I_C = -1\text{ A}, I_{B1} = -I_{B2} = -0.2\text{ A}, R_L = 30\ \Omega$		0.4		μs
t_{STG}	Storage Time			1.7		μs
t_F	Fall Time			0.5		μs

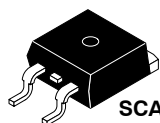
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

h_{FE} CLASSIFICATION

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

MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS

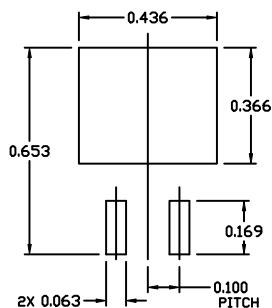
ON Semiconductor®



SCALE 1:1

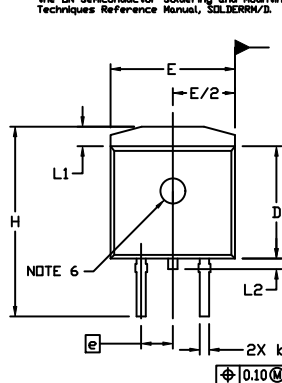
D²PAK-3 (TO-263, 3-LEAD) CASE 418AJ ISSUE F

DATE 11 MAR 2021



RECOMMENDED MOUNTING FOOTPRINT

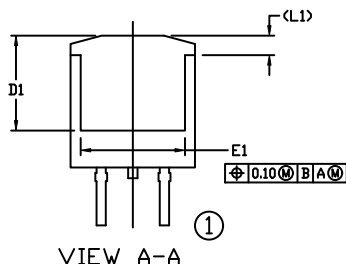
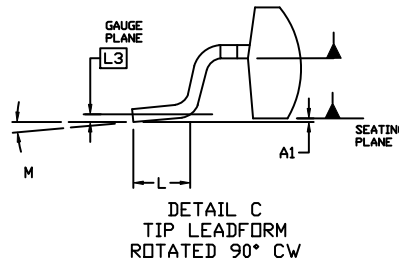
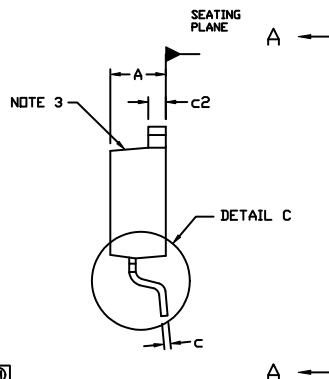
■ For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.



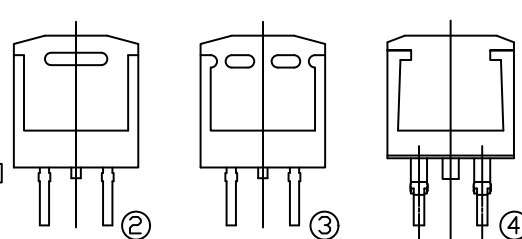
NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.
2. CONTROLLING DIMENSION: INCHES
3. CHAMFER OPTIONAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED 0.005 PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY AT DATUM H.
5. THERMAL PAD CONTOUR IS OPTIONAL WITHIN DIMENSIONS E, L1, D1, AND E1.
6. OPTIONAL MOLD FEATURE.
7. Ⓢ, Ⓣ ... OPTIONAL CONSTRUCTION FEATURE CALL OUTS.

DIM	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A	0.160	0.190	4.06	4.83
A1	0.000	0.010	0.00	0.25
b	0.020	0.039	0.51	0.99
c	0.012	0.029	0.30	0.74
c2	0.045	0.065	1.14	1.65
D	0.330	0.380	8.38	9.65
D1	0.260	---	6.60	---
E	0.380	0.420	9.65	10.67
E1	0.245	---	6.22	---
e	0.100	BSC	2.54	BSC
H	0.575	0.625	14.60	15.88
L	0.070	0.110	1.78	2.79
L1	---	0.066	---	1.68
L2	---	0.070	---	1.78
L3	0.010	BSC	0.25	BSC
M	0*	8*	0*	8*

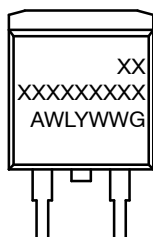


VIEW A-A

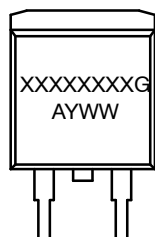


VIEW A-A
OPTIONAL CONSTRUCTIONS

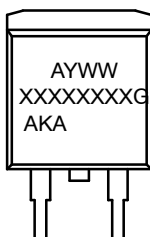
GENERIC MARKING DIAGRAMS*



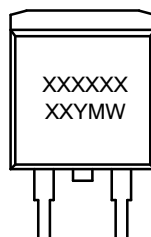
IC



Standard



Rectifier



SSG

XXXXXX = Specific Device Code
A = Assembly Location
WL = Wafer Lot
Y = Year
WW = Work Week
W = Week Code (SSG)
M = Month Code (SSG)
G = Pb-Free Package
AKA = Polarity Indicator

*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

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