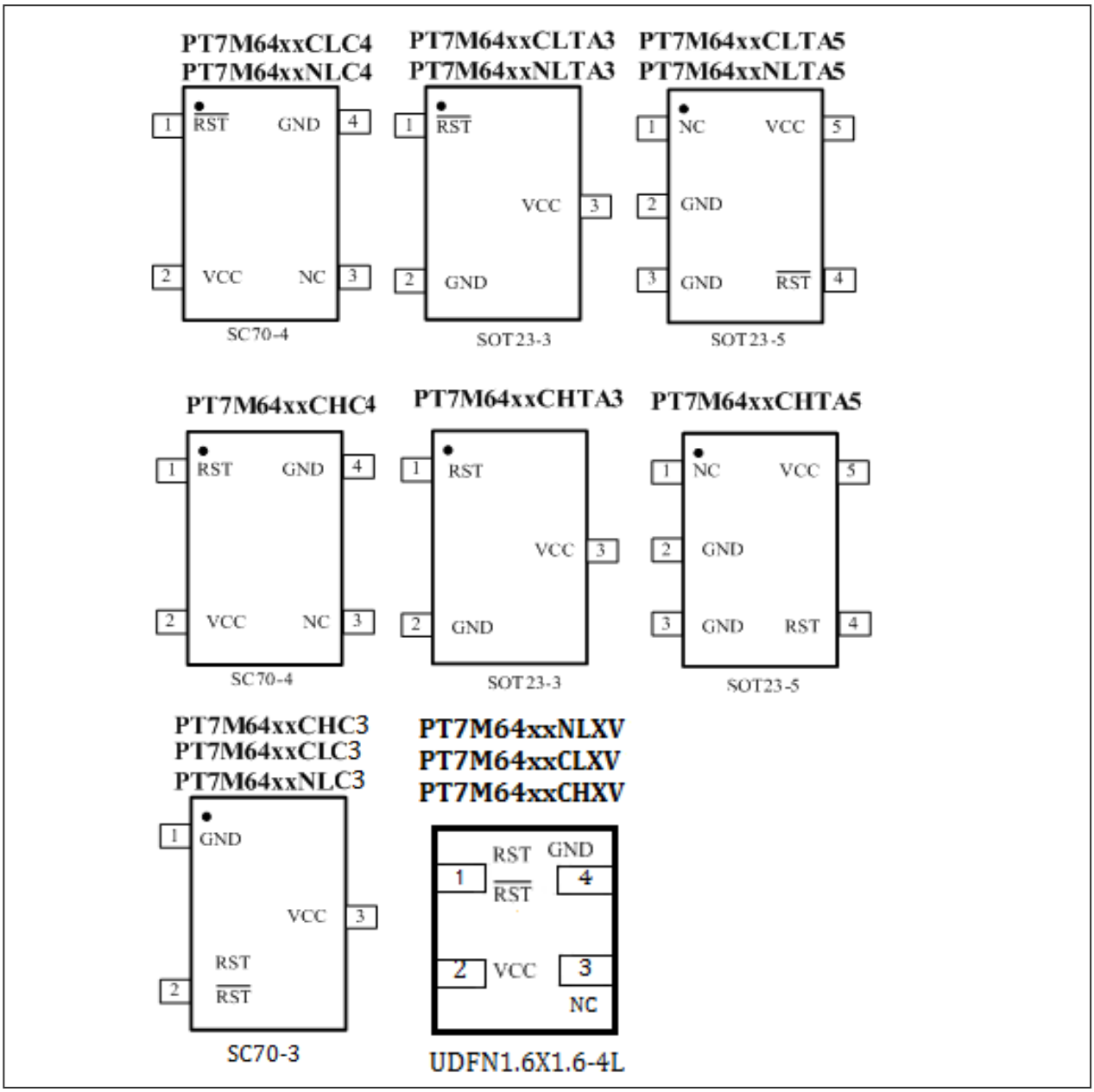
Pin Configuration



Pin Description

Name	Type	Description
$\overline{RST}$	O	**Reset Output (PT7M64xxCL/NL/BL/NLL):** $\overline{RST}$ is asserted when V_{CC} drops below voltage threshold V_{TH-}: Active low. For PT7M64xxBL, $\overline{RST}$ is also pushbutton reset input
RST	O	**Reset Output (PT7M64xxCH):** RST is asserted when V_{CC} drops below voltage threshold V_{TH-}: Active high.
GND	P	**Ground**
V_{CC}	P	**Supply Voltage**

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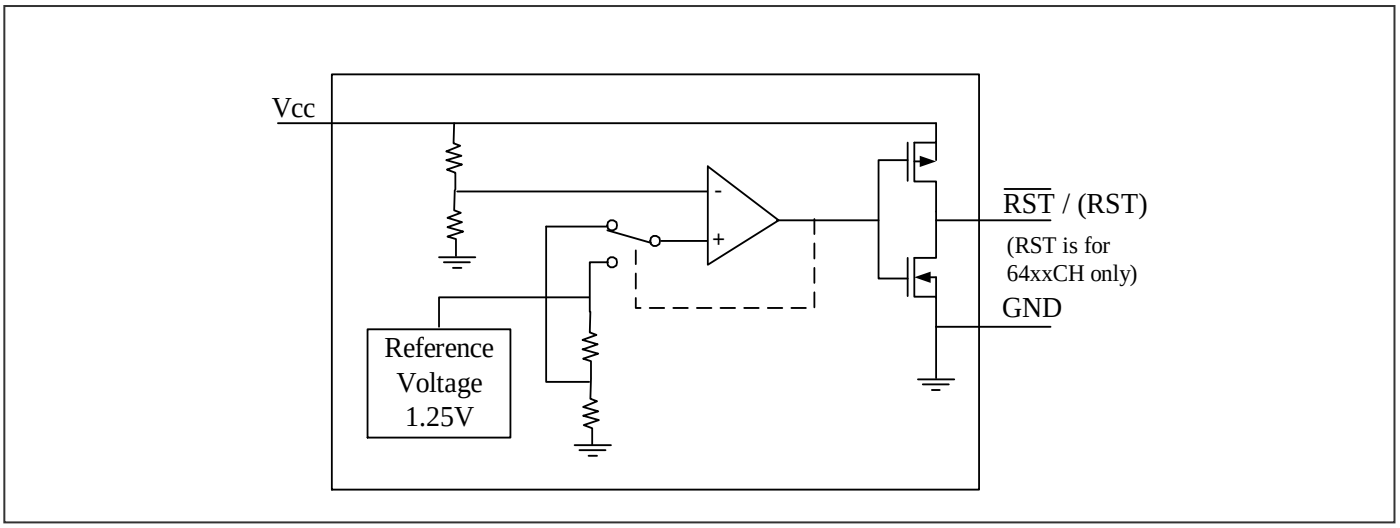
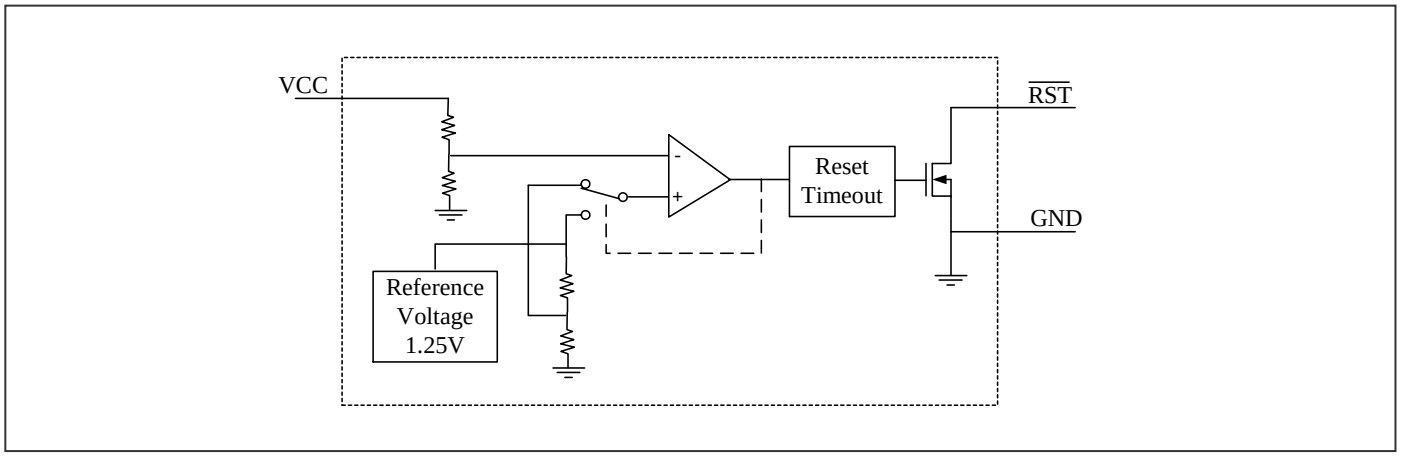
Block Diagram

Block Diagram of PT7M64xxCL/CH



Block Diagram of PT7M64xxNL



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Maximum Ratings

Storage Temperature .....-65ºC to +150ºC
Ambient Temperature with Power Applied .....-40ºC to +85ºC
Supply Voltage to Ground Potential (Vcc to GND) .....-0.3V to +6.0V
DC Input Voltage (All inputs except Vcc and GND).....-0.3V to V_{CC}+0.3V
DC Output Current (All outputs) 20mA
ESD(HBM) for 64xxNL/NLL.....1KV
ESD(HBM) for 64xxCL/CH/BL.....2KV
Power Dissipation 320mW
(Depend on package)

Note:
Stresses greater than those listed under MAXIMUM RATINGS may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect reliability.

DC Electrical Characteristics

(V_{CC} = 1.2V to 5.5V, T_A= -40~85ºC, unless otherwise noted. Typical values are at T_A = +25ºC)

Description		Sym	Test Conditions	Min	Typ	Max	Unit
Supply Voltage		V_{CC}	T_A= 0~70ºC	1.0	-	5.5	V
			T_A= -40~85ºC	1.2	-	5.5	
Supply Current		I_{CC}	V_{CC} = 3V. No load.	-	0.6	1.2	µA
			V_{CC} = 5V. No load.	-	0.9	2.0	µA
Output Driving	Output high (Push-Pull only)	V_{OH}	$V_{CC} \geq$ 1.8V, I_{source} = 1mA	0.8×Vcc	-	-	V
			$V_{CC} \geq$ 2.5V, I_{source} = 3mA	0.8×Vcc	-	-	
			$V_{CC} \geq$ 4.5V, I_{source} = 8mA	0.8×Vcc	-	-	
	Output low	V_{OL}	$V_{CC} \geq$ 1.2V, I_{sink} = 1mA	-	-	0.3	V
			$V_{CC} \geq$ 2.5V, I_{sink} = 4mA	-	-	0.3	
			$V_{CC} \geq$ 4.5V, I_{sink} = 9mA	-	-	0.4	
Open-Drain Output Leakage Current		I_{LKG}	-	-	-	1	µA
Voltage Threshold*		V_{TH-}	+25°C	(V_{TH-}) ×0.985	V_{TH-}	(V_{TH-}) ×1.015	V
			-40°C~85°C	(V_{TH-}) ×0.975	V_{TH-}	(V_{TH-}) ×1.025	
		V_{TH+}	+25°C	(V_{TH+}) ×0.985	V_{TH+}	(V_{TH+}) ×1.015	
			-40°C~85°C	(V_{TH+}) ×0.975	V_{TH+}	(V_{TH+}) ×1.025	
Voltage threshold Hysteresis		V_{HYST}	V_{HYST} = [(V_{TH+})-(V_{TH-})]/(V_{TH-}) ×100%	3	4.5	6	%
Pushbutton Detect		P_{BDV}	-40°C~85°C, Vcc = 5V	0.7	-	1.2	V
Internal Pull-Up Resistor		R_P	-	3.75	5	6.25	kΩ

* V_{TH+} = 1.05 × V_{TH-}. V_{TH-} is VCC dropping from high to low voltage. V_{TH+} is V_{CC} rising from low to high voltage.

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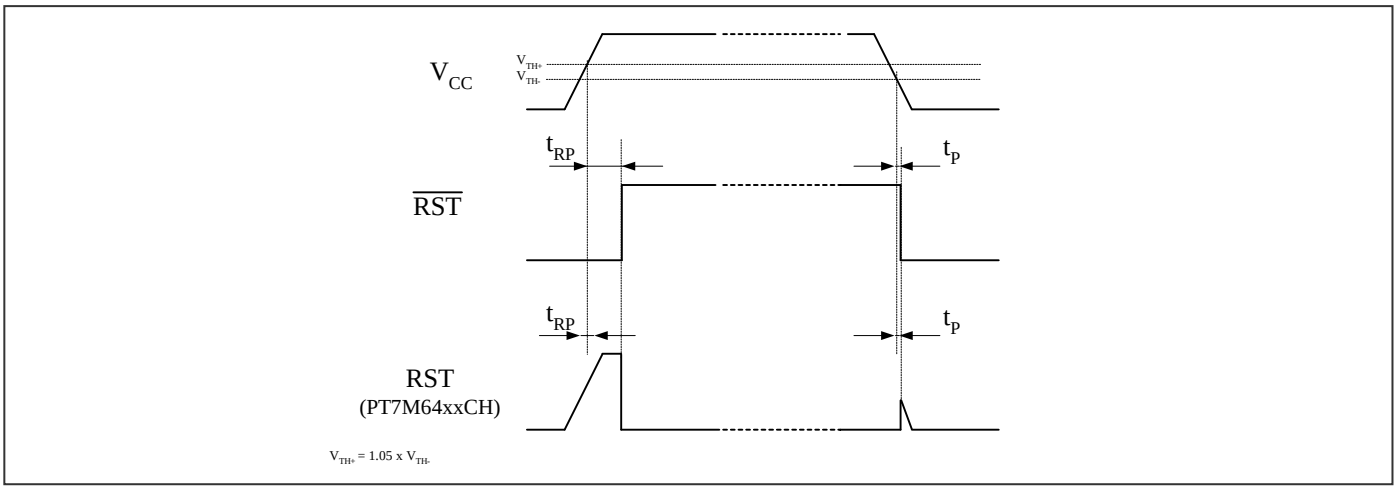
AC Electrical Characteristics

Timing Diagram

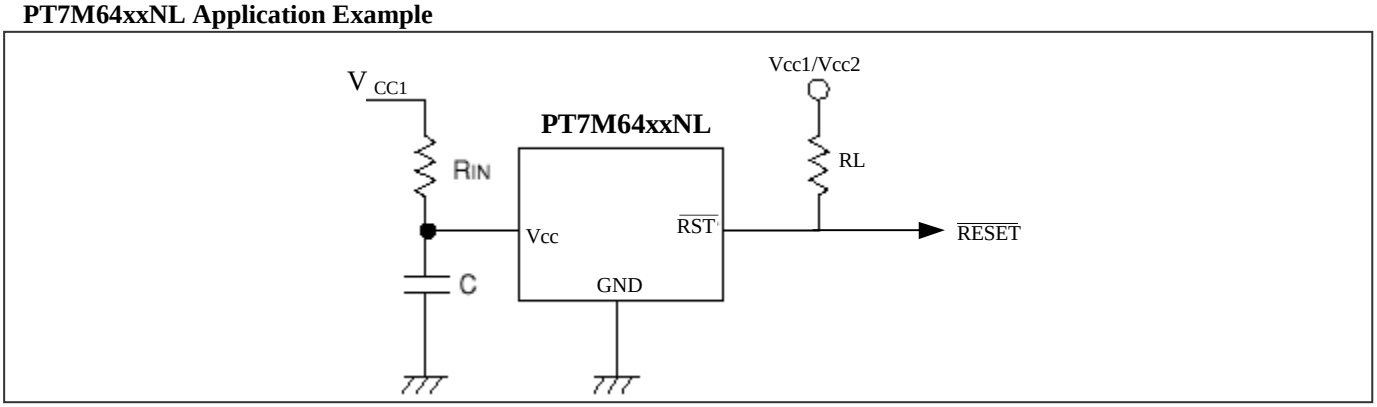


(V_{CC} = 1.2V to 5.5V, T_A= -40~85ºC, unless otherwise noted. Typical values are at T_A = +25ºC)

Sym	Description	Test Conditions	Min	Typ	Max	Unit
t_{RP}	Timeout Period	T_A = +25ºC	120	260	430	ms
t_P	Delay	-	-	35	-	µs

Typical Operation Circuit

PT7M64xxNL Application Example



For typical application, R_L could be 100kΩ, R_{IN} less than 10kΩ and that C more than 0.1µF.

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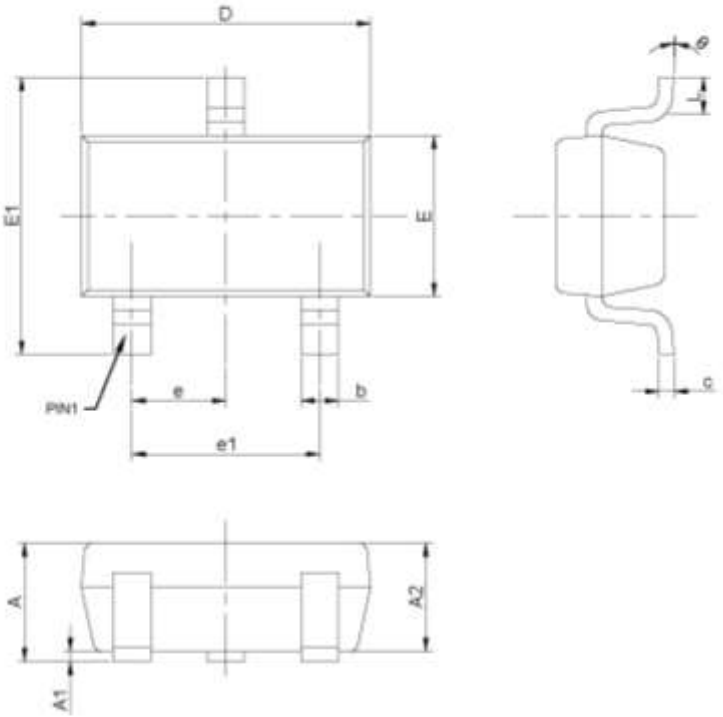
Mechanical Information

TA3 (SOT23)



PKG. DIMENSIONS(MM)		
SYMBOL	Min	Max
A	-	1.45
A1	0.00	0.15
A2	0.90	1.30
b	0.30	0.50
c	0.08	0.22
D	2.75	3.10
E	1.45	1.75
E1	2.60	3.00
e	0.95 BSC	
e1	1.90 BSC	
L	0.30	0.60
θ	0°	8°

Note:
1. Comply with MO-178C except D Max.
2.PACKAGE OUTLINE DIMENSIONS DO NOT INCLUDE MOLD FLASH AND METAL BURR

PERICOM

DATE: 03/29/16

DESCRIPTION: 3-Pin, Small Outline Transistor Plastic Package (SOT23)

PACKAGE CODE: TA (TA3)

DOCUMENT CONTROL #: PD-2143 REVISION:A

16-0080

Note:
1) Controlling dimensions in millimeters

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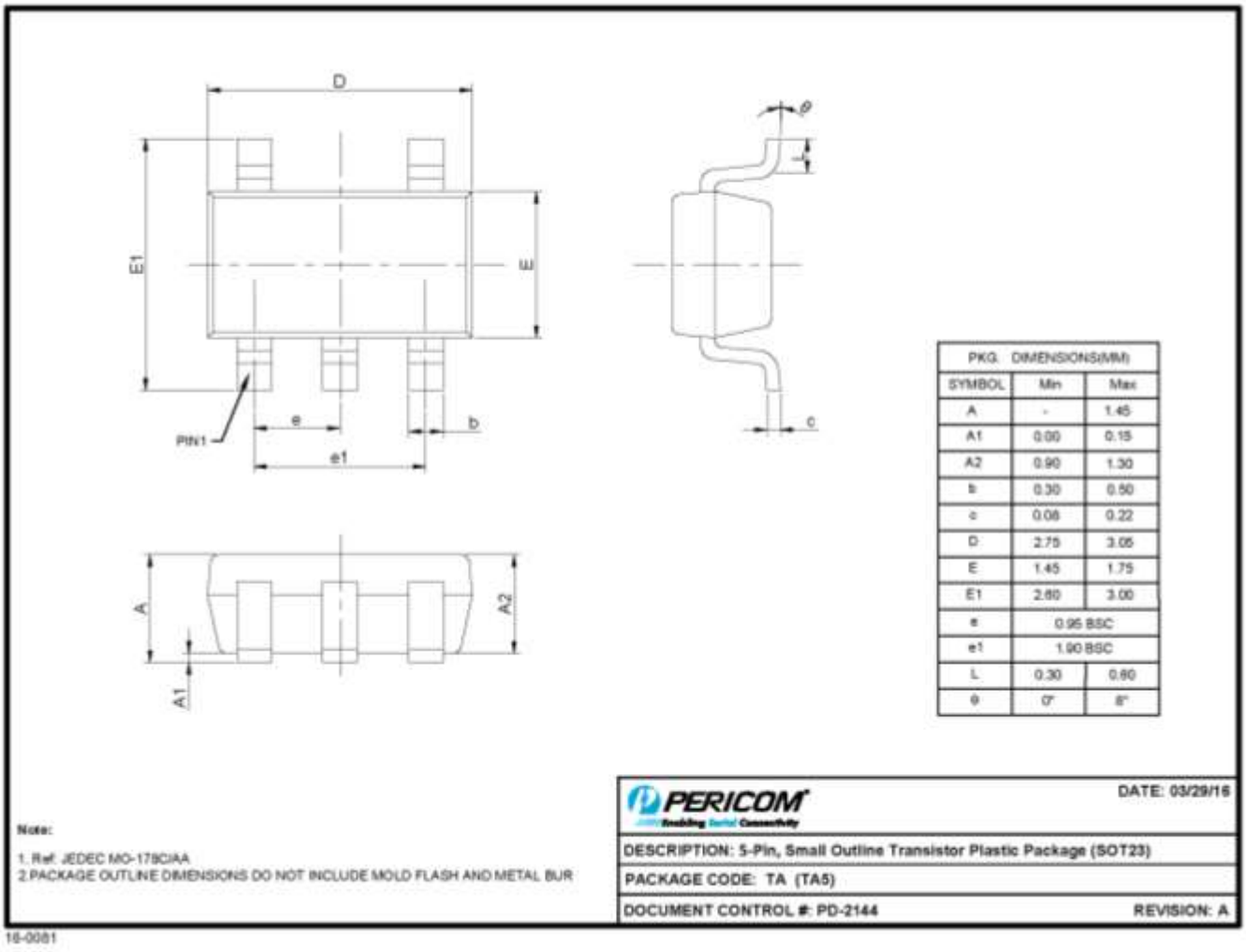
TA5 (SOT23)



PKG. DIMENSIONS(MM)		
SYMBOL	Min	Max
A	-	1.45
A1	0.00	0.15
A2	0.90	1.30
b	0.30	0.50
c	0.08	0.22
D	2.75	3.05
E	1.45	1.75
E1	2.60	3.00
e	0.95 BSC	
e1	1.90 BSC	
L	0.30	0.60
θ	0°	8°

Note:

1. Ref: JEDEC MO-178C/AA
2.PACKAGE OUTLINE DIMENSIONS DO NOT INCLUDE MOLD FLASH AND METAL BUR

PERICOM

DATE: 03/29/16

DESCRIPTION: 5-Pin, Small Outline Transistor Plastic Package (SOT23)

PACKAGE CODE: TA (TA5)

DOCUMENT CONTROL #: PD-2144 REVISION: A

16-0081

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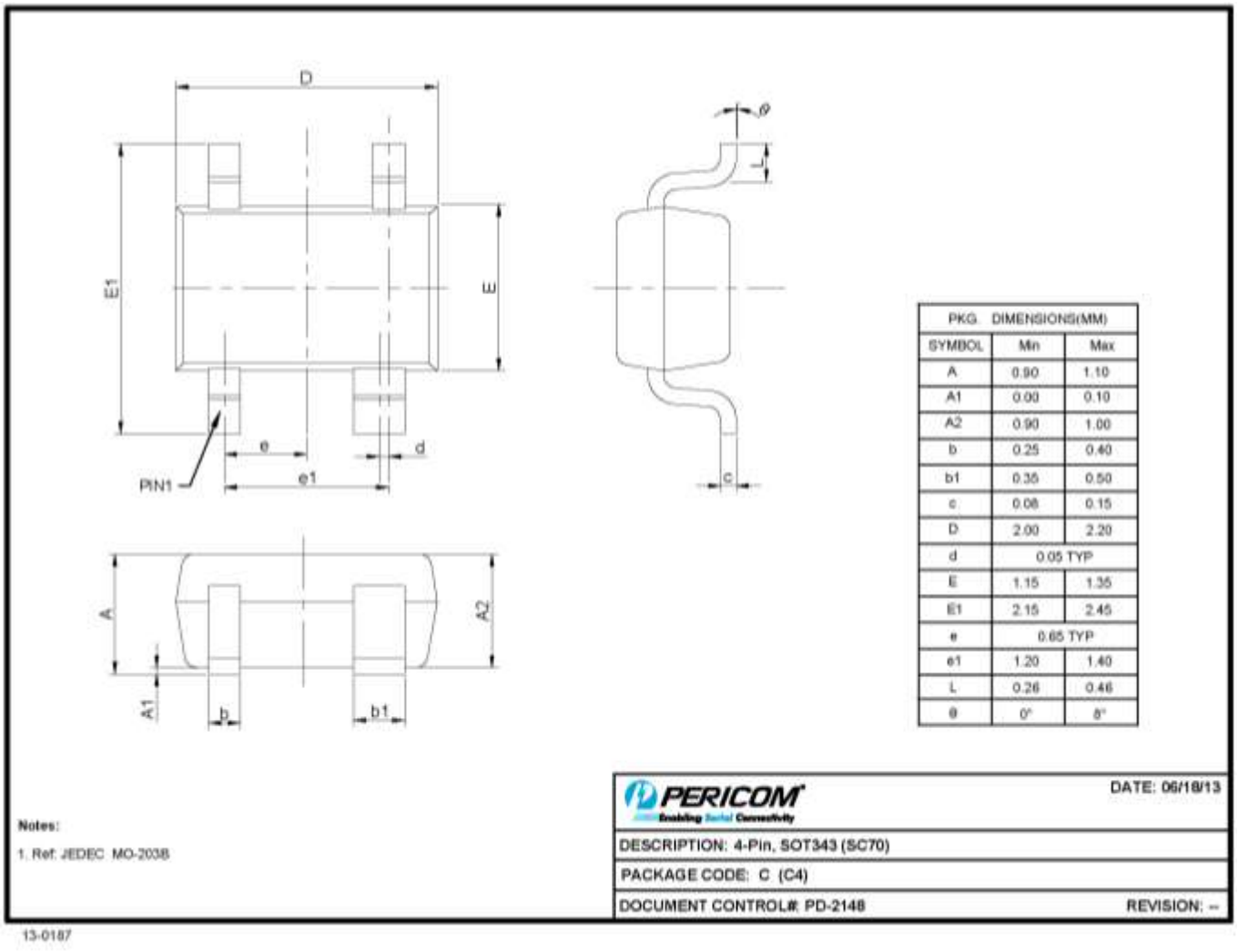
C4 (SC70)



PKG. DIMENSIONS(MM)		
SYMBOL	Min	Max
A	0.90	1.10
A1	0.00	0.10
A2	0.90	1.00
b	0.25	0.40
b1	0.35	0.50
c	0.08	0.15
D	2.00	2.20
d	0.05 TYP	
E	1.15	1.35
E1	2.15	2.45
e	0.65 TYP	
e1	1.20	1.40
L	0.26	0.46
θ	0°	8°

Notes:

1. Ref: JEDEC MO-203B

PERICOM Enabling Serial Connectivity

DATE: 06/18/13

DESCRIPTION: 4-Pin, SOT343 (SC70)

PACKAGE CODE: C (C4)

DOCUMENT CONTROL#: PD-2148 REVISION: --

13-0187

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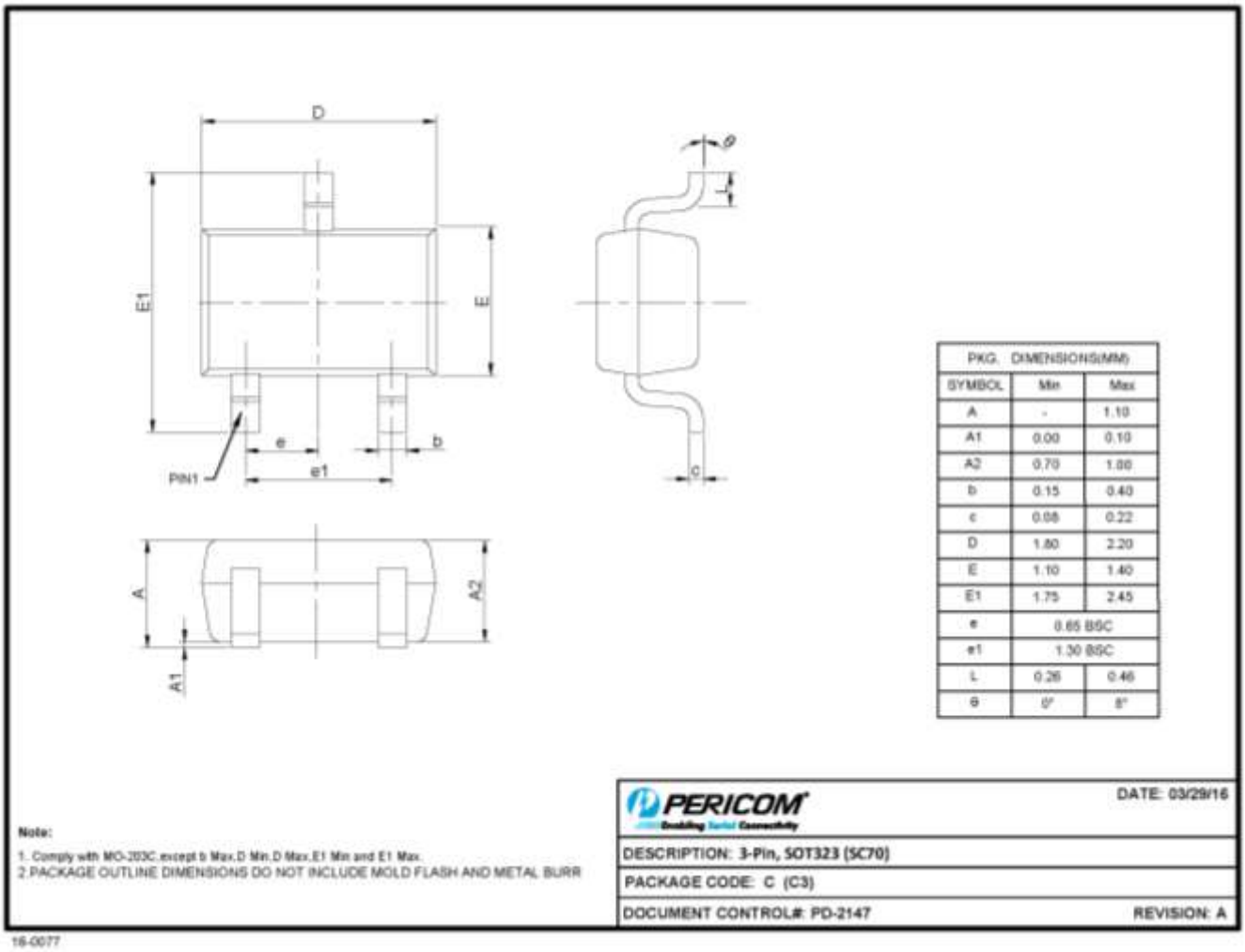
C3 (SC70)



PKG. DIMENSIONS(MM)		
SYMBOL	Min	Max
A	-	1.10
A1	0.00	0.10
A2	0.70	1.00
b	0.15	0.40
c	0.08	0.22
D	1.80	2.20
E	1.10	1.40
E1	1.75	2.45
e	0.65 BSC	
e1	1.30 BSC	
L	0.26	0.46
θ	0°	8°

Note:
1. Comply with MO-203C except b Max.D Min.D Max.E1 Min and E1 Max.
2 PACKAGE OUTLINE DIMENSIONS DO NOT INCLUDE MOLD FLASH AND METAL BURR

PERICOM Enabling Serial Connectivity — DATE: 03/29/16

DESCRIPTION: 3-Pin, SOT323 (SC70)

PACKAGE CODE: C (C3)

DOCUMENT CONTROL#: PD-2147 — REVISION: A

16-0077

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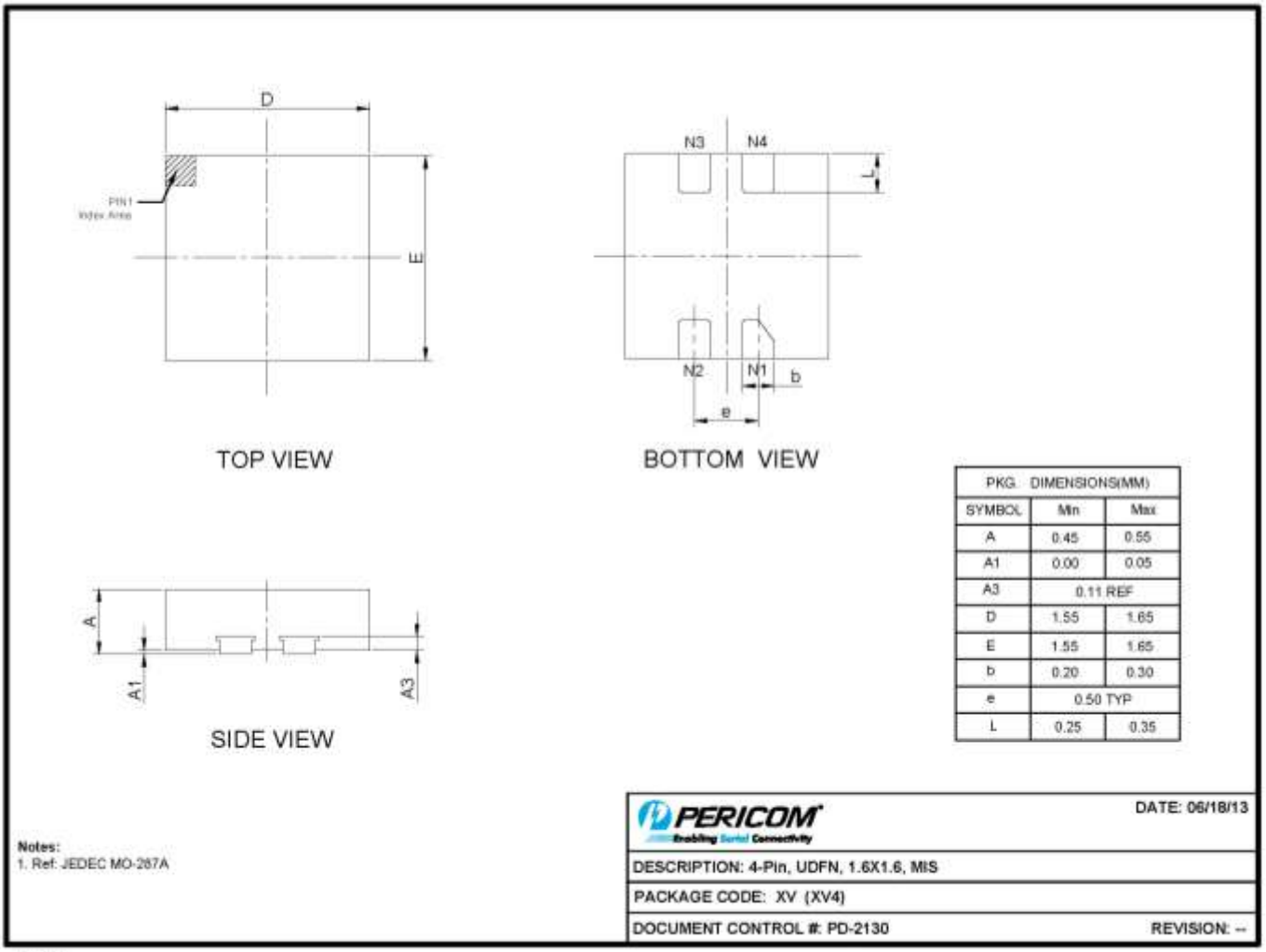
XV (UDFN1.6x1.6-4L)



PKG. DIMENSIONS(MM)		
SYMBOL	Min	Max
A	0.45	0.55
A1	0.00	0.05
A3	0.11 REF	
D	1.55	1.65
E	1.55	1.65
b	0.20	0.30
e	0.50 TYP	
L	0.25	0.35

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For latest package info.
please check: http://www.diodes.com/design/support/packaging/pericom-packaging/packaging-mechanicals-and-thermal-characteristics/

Ordering Information

Part Number	Package Code	Package
PT7M64xxCLTA3E	TA3	3-Pin, Small Outline Transistor Plastic Package (SOT23)
PT7M64xxCLTA5E	TA5	5-Pin, Small Outline Transistor Plastic Package (SOT23)
PT7M64xxCLC3E	C3	3-Pin, SOT323 (SC70)
PT7M64xxCLC4E	C4	4-Pin, SOT343 (SC70)
*PT7M64xxCHTA3E	TA3	3-Pin, Small Outline Transistor Plastic Package (SOT23)
*PT7M64xxCHTA5E	TA5	5-Pin, Small Outline Transistor Plastic Package (SOT23)
*PT7M64xxCHC3E	C3	3-Pin, SOT323 (SC70)
*PT7M64xxCHC4E	C4	4-Pin, SOT343 (SC70)
PT7M64xxNLTA3E	TA3	3-Pin, Small Outline Transistor Plastic Package (SOT23)
PT7M64xxNLTA5E	TA5	5-Pin, Small Outline Transistor Plastic Package (SOT23)
PT7M64xxNLC3E	C3	3-Pin, SOT323 (SC70)
PT7M64xxNLC4E	C4	4-Pin, SOT343 (SC70)
PT7M64xxNLXV4E	XV	4-Pin, 1.6x1.6, MIS (UDFN)
PT7M64xxCLXV4E	XV	4-Pin, 1.6x1.6, MIS (UDFN)
*PT7M64xxCHXV4E	XV	4-Pin, 1.6x1.6, MIS (UDFN)

Note:

- "xx" refer to voltage range, see below table 1.
- E = Pb-free or Pb-free and Green
- Adding X Suffix= Tape/Reel
- Contact Pericom for availability.
- "*" for CH part, please check the storage with related sales.

Table.2 Suffix "xx" definition of PT7M64xx

Suffix xx	V_{TH-} (V)	Suffix xx	V_{TH-} (V)	Suffix xx	V_{TH-} (V)	Suffix xx	V_{TH-} (V)	Suffix xx	V_{TH-} (V)
18	1.8	25	2.5	32	3.2	39	3.9	46	4.6
19	1.9	26	2.6	33	3.3	40	4.0	47	4.7
20	2.0	27	2.7	34	3.4	41	4.1	48	4.8
21	2.1	28	2.8	35	3.5	42	4.2	49	4.9
22	2.2	29	2.9	36	3.6	43	4.3	50	5.0
23	2.3	30	3.0	37	3.7	44	4.4		
24	2.4	31	3.1	38	3.8	45	4.5		

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SOT-23/SC-70 Package Top Marking Instruction

PART NO.
2 BIT CODE
(See Table 2)

DATE CODE
YEAR & WORK WEEK

Lead-Free Sign
-: lead-free or
Lead free and
Green

Example: AALJ → PART NO.: PT7M64XXCL
DATE CODE: YEAR 2003 WW10

Example: $\overline{A}$ALJ → PART NO.: PT7M64XXCLE
DATE CODE: YEAR 2003 WW10
Lead free package or Lead free and Green package

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