150 mA µCap LDO Regulator

Features

- 2.7V to 5.5V Supply Voltage
- Low 75 µA Quiescent Current per LDO
- Thin SOT-23 or UDFN Package Options
- Low Noise: 57 μV_{RMS}
- High PSRR: 60 dB at 1 kHz
- Very Low Dropout Voltage: 210 mV at 150 mA
- Stable with Ceramic Output Capacitors
- Fast Transient Response
- Active Shutdown

Applications

- Cellular Phones
- PDAs
- GPS Receivers

General Description

The MIC5265 is a 150 mA LDO in a lead-free Thin SOT-23-5 and UDFN package that is excellent for applications where cost is the priority. It is ideal for any application in portable electronics, including both RF and Digital applications. With low output noise and high PSRR, the MIC5265 is well-qualified for noise sensitive applications such as RF. While the fast transient response and active shutdown circuitry makes it well-suited for powering digital circuitry.

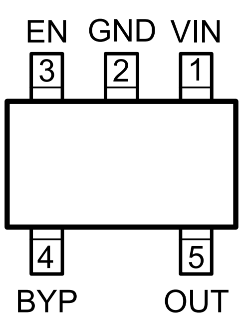
The MIC5265 has a 2.7V to 5.5V input operating voltage range, making it perfect for operating from a single cell lithium-ion battery or fixed 3.3V and 5V systems. The MIC5265 come with an enable pin and can be put into a zero off-mode current state.

The MIC5265 offers low dropout voltage (210 mV at 150 mA), low output noise (57 μV_{RMS}), high PSRR and integrates an active shutdown circuit on the output of each regulator to discharge the output voltage when disabled.

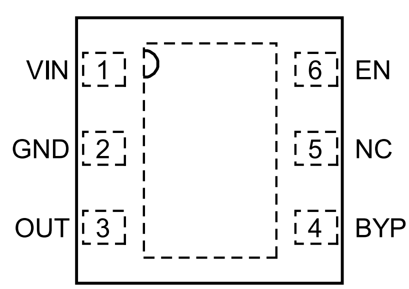
The MIC5265 is available in fixed-output voltages in the thermally enhanced the 6-pin 1.6 mm x 1.6 mm leadless UDFN package, which offers a bypass pin for additional noise rejection, and the tiny TSOT-23-5 package.

Package Types

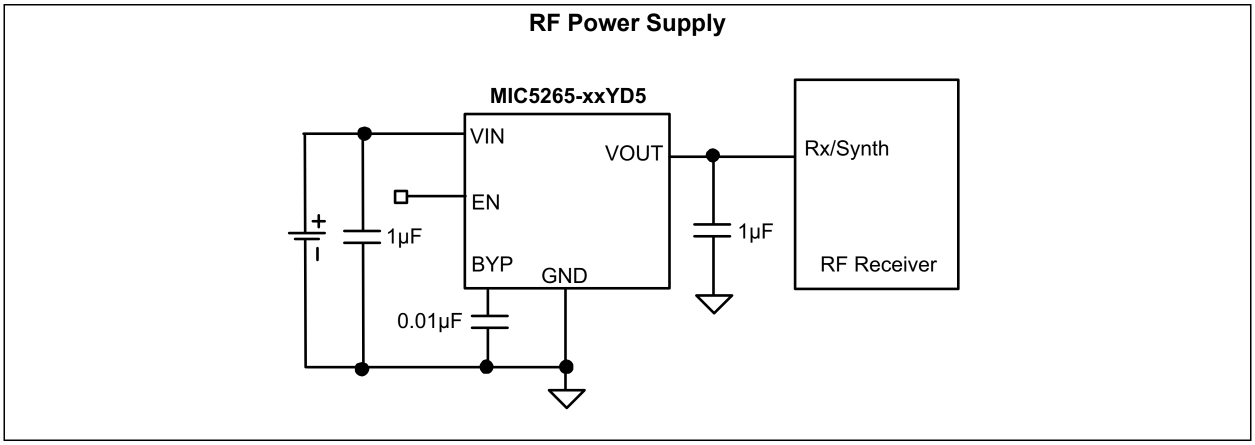
MIC5265
TSOT-23-5 (D5)
(Top View)



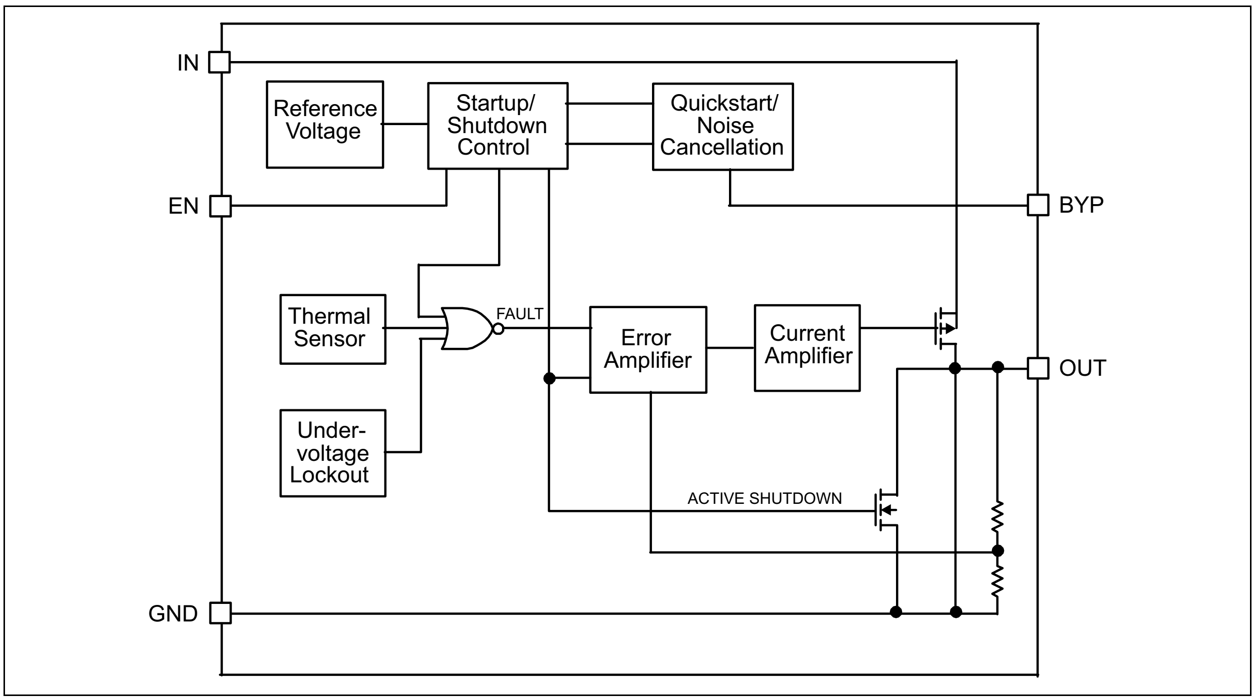
MIC5265
UDFN-6 (MT)
(Top View)



Typical Application Circuit



Functional Block Diagram



1.0 ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings †

Supply Input Voltage (V_{IN}) .... 0V to +7V
Enable Input Voltage (V_{EN1}) .... 0V to +7V
Power Dissipation (P_D) Note 1 .... Internally Limited
ESD Rating (Note 2) .... 2 kV

Operating Ratings ‡

Supply Input Voltage (V_{IN}) .... +2.7V to +5.5V
Enable Input Voltage (V_{EN}) .... 0V to V_{IN}

† Notice: Stresses above those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. This is a stress rating only and functional operation of the device at those or any other conditions above those indicated in the operational sections of this specification is not intended. Exposure to maximum rating conditions for extended periods may affect device reliability.

‡ Notice: The device is not guaranteed to function outside its operating ratings.

Note 1: The maximum allowable power dissipation of any T_A (ambient temperature) is $P_{D(MAX)} = (T_{J(MAX)} – T_A)/\theta_{JA}$. Exceeding the maximum allowable power dissipation will result in excessive die temperature, and the regulator will go into thermal shutdown. The θ_{JA} of the MIC5265x.xYD5 (all TSOT-23 options) is 235°C/W on a PC board (see the Thermal Considerations section for further details).

2: Devices are ESD sensitive. Handling precautions recommended. Human body model, 1.5 kΩ in series with 100 pF.

ELECTRICAL CHARACTERISTICS

Electrical Characteristics: $V_{EN} = V_{IN} = V_{OUT}$ + 1V; I_L = 100 µA; C_L = 1.0 µF; C_{BYP} = 0.01 µF per output; T_A = +25°C, **bold** values valid for –40°C ≤ T_A ≤ +125°C; unless noted. Note 1

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Output Voltage Accuracy	V_O	–2	—	2	%	I_{OUT} = 100 µA
		–3	—	**3**		
Line Regulation	$\Delta V_{OUT}/V_{OUT}$	—	0.05	0.2	%	$V_{IN} = V_{OUT}$ + 1V to 5.5V
Load Regulation	$\Delta V_{OUT}/V_{OUT}$	—	2	3	%	I_{OUT} = 0.1 mA to 150 mA
Dropout Voltage	$V_{IN} – V_O$	—	75	—	mV	I_{OUT} = 50 mA
		—	210	**500**		I_{OUT} = 150 mA
Quiescent Current	I_Q	—	0.2	**2**	µA	V_{EN} < 0.2V
Ground Current	I_{GND}	—	75	**120**	µA	I_{OUT} = 0 mA
			80	**150**		I_{OUT} = 150 mA
Ripple Rejection	PSRR	—	62	—	dB	f = 100 Hz, C_{BYP} = 0.1 µF, I_{LOAD} –50 mA
		—	64	—		f = 1 kHz, C_{BYP} = 0.1 µF, I_{LOAD} –50 mA
		—	64	—		f = 10 kHz, C_{BYP} = 0.1 µF, I_{LOAD} –50 mA
Current Limit	I_{LIM}	—	225	—	mA	V_{OUT} = 0V
Output Noise	e_n	—	57	—	μV_{RMS}	C_{OUT} = 1.0 µF, C_{BYP} = 0.1 µF, f = 10 Hz to 100 kHz
Enable Input (EN)						
Enable Input Logic-Low Voltage	V_{IL}	—	—	**0.2**	V	V_{IN} = 2.7V to 5.5V, Regulator shutdown

ELECTRICAL CHARACTERISTICS (CONTINUED)

Electrical Characteristics: $V_{EN} = V_{IN} = V_{OUT}$ + 1V; I_L = 100 µA; C_L = 1.0 µF; C_{BYP} = 0.01 µF per output; T_A = +25°C, **bold** values valid for –40°C ≤ T_A ≤ +125°C; unless noted. Note 1

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Enable Input Logic-High Voltage	V_{IH}	**1.6**	—	—	V	V_{IN} = 2.7V to 5.5V, Regulator enabled
Enable Input Current	I_{IL}	—	0.01	—	µA	V_{IL} < 0.4V, Regulator shutdown
	I_{IH}	—	0.01	—		V_{IH} > 1.6V, Regulator enabled
Thermal Shutdown						
Thermal Shutdown Temperature	T_{SHDN}	—	150	—	°C	—
Hysteresis	T_{HYS}	—	10	—	°C	—
Turn-on/Turn-off Characteristics						
Turn-on Time	t_{ON}	—	40	**150**	µs	—
Discharge Resistance	R_{DS}	—	500	—	Ω	—

Note 1: Specification for packaged product only.

TEMPERATURE SPECIFICATIONS

Parameters	Sym.	Min.	Typ.	Max.	Units	Conditions
Temperature Ranges						
Junction Temperature Range	T_J	–40	—	+125	°C	Note 1
Lead Temperature	T_{LEAD}	—	—	+260	°C	Soldering, 3 sec.
Storage Temperature	T_S	–55	—	+150	°C	—
Package Thermal Resistances						
Thermal Resistance, TSOT-23-5	θ_{JA}	—	235	—	°C/W	—
Thermal Resistance, UDFN-6	θ_{JA}	—	100	—	°C/W	—

Note 1: The maximum allowable power dissipation is a function of ambient temperature, the maximum allowable junction temperature and the thermal resistance from junction to air (i.e., T_A, T_J, θ_{JA}), $P_{D(MAX)} = (T_{J(MAX)} - T_A)/\theta_{JA}$. Exceeding the maximum allowable power dissipation will cause the device operating junction temperature to exceed the maximum +125°C rating. Sustained junction temperatures above +125°C can impact the device reliability.

2.0 TYPICAL PERFORMANCE CURVES

Note: The graphs and tables provided following this note are a statistical summary based on a limited number of samples and are provided for informational purposes only. The performance characteristics listed herein are not tested or guaranteed. In some graphs or tables, the data presented may be outside the specified operating range (e.g., outside specified power supply range) and therefore outside the warranted range.

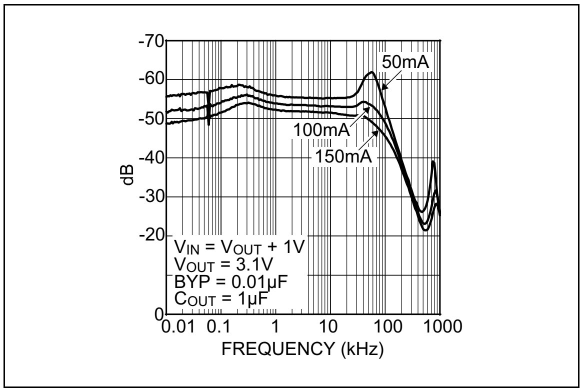


FIGURE 2-1: *Power Supply Rejection Ratio.*

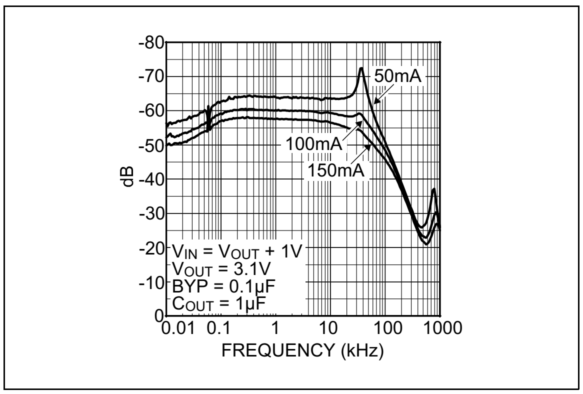


FIGURE 2-2: *Power Supply Rejection Ratio.*

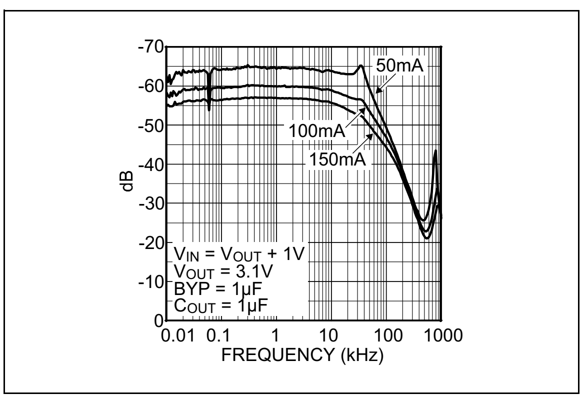


FIGURE 2-3: *Power Supply Rejection Ratio.*

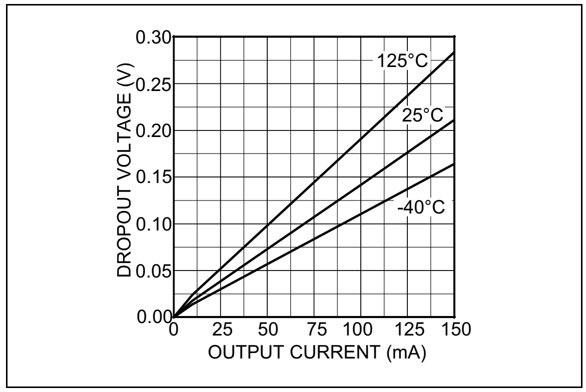


FIGURE 2-4: *Dropout Voltage vs. Output Current.*

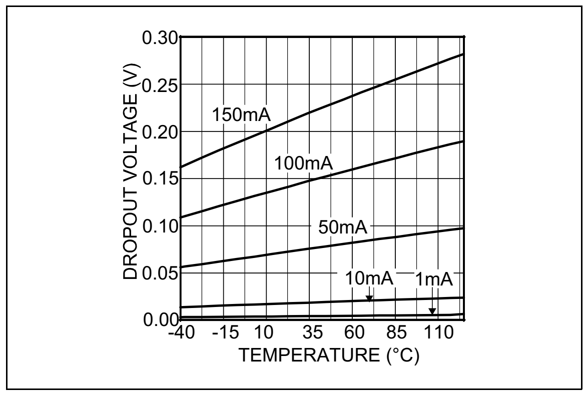


FIGURE 2-5: *Dropout Voltage vs. Temperature.*

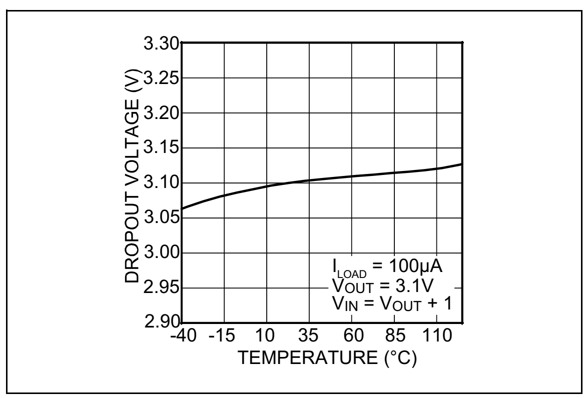


FIGURE 2-6: *Dropout Voltage vs. Temperature.*

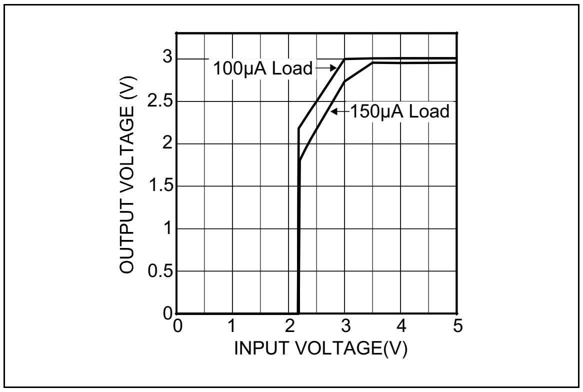


FIGURE 2-7: *Output Voltage vs. Input Voltage.*

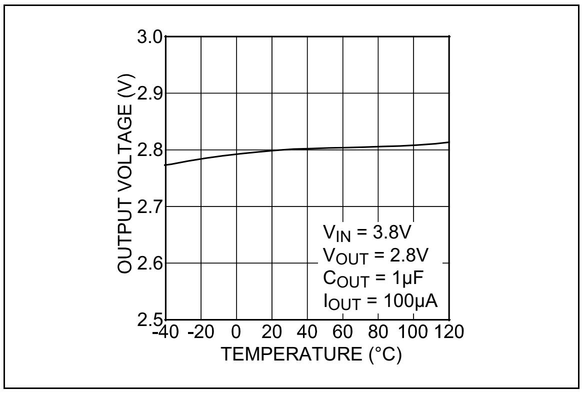


FIGURE 2-8: *Output Voltage vs. Temperature.*

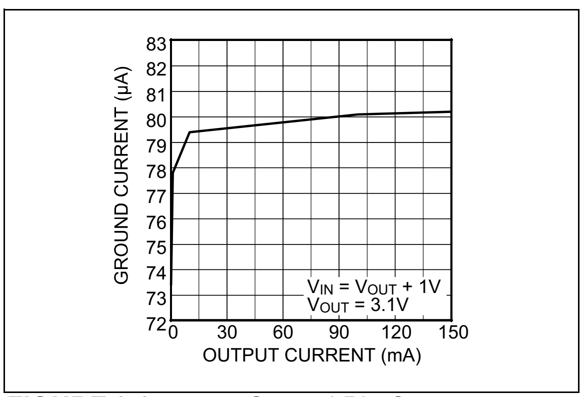


FIGURE 2-9: *Ground Pin Current vs. Output Current.*

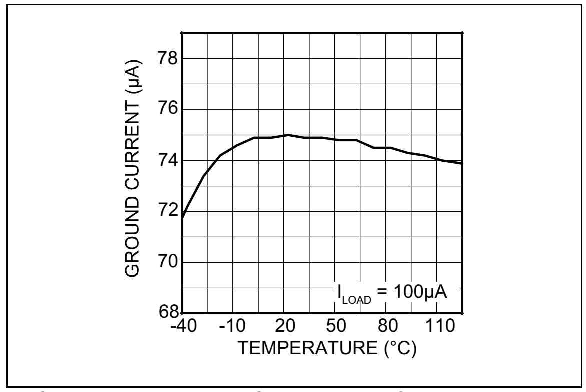


FIGURE 2-10: *Ground Pin Current vs. Temperature.*

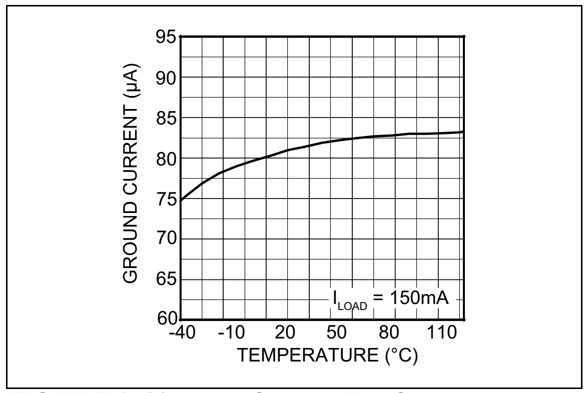


FIGURE 2-11: *Ground Pin Current vs. Temperature.*

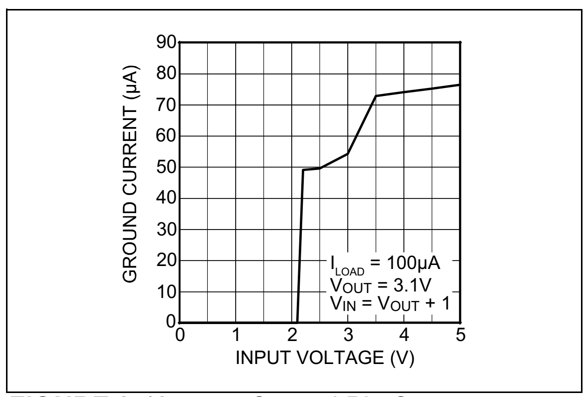


FIGURE 2-12: *Ground Pin Current vs. Input Voltage.*

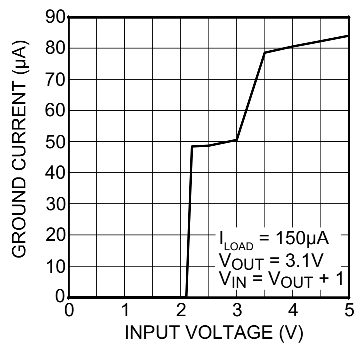


FIGURE 2-13: *Ground Pin Current vs. Input Voltage.*

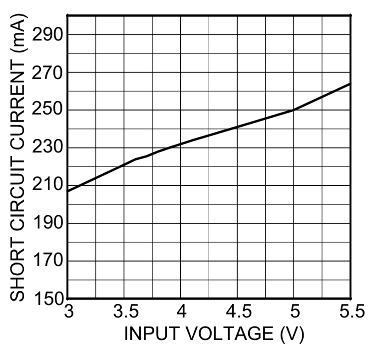


FIGURE 2-14: *Short-Circuit Current vs. Input Voltage.*

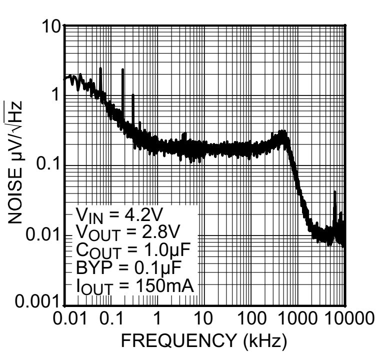


FIGURE 2-15: *Output Noise Spectral Density.*

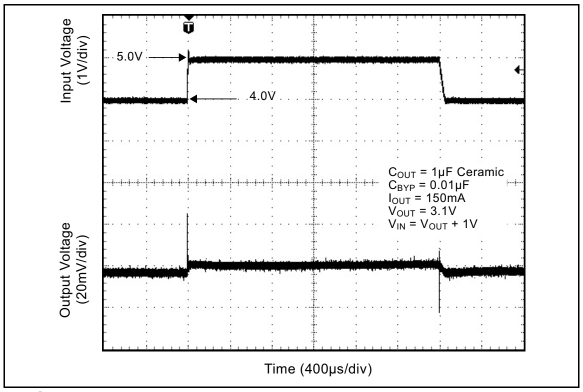


FIGURE 2-16: *Line Transient Response.*

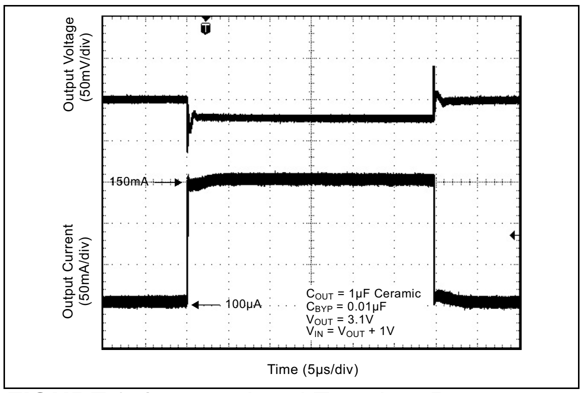


FIGURE 2-17: *Load Transient Response.*

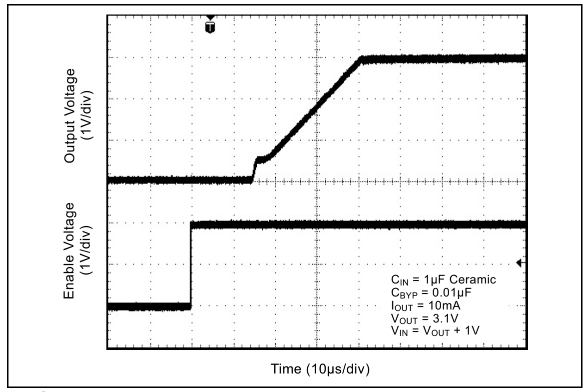


FIGURE 2-18: *Enable Pin Delay.*

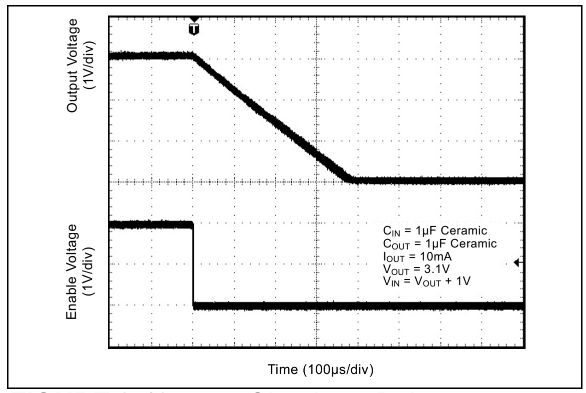


FIGURE 2-19: *Shutdown Delay.*

3.0 PIN DESCRIPTIONS

The descriptions of the pins are listed in Table 3-1.

TABLE 3-1: PIN FUNCTION TABLE

Pin Number TSOT-23-5	Pin Number UDFN-6	Pin Name	Description
1	1	VIN	Supply voltage.
2	2	GND	Ground.
3	6	EN	Enable/Shutdown (Input): CMOS-compatible input. Logic-high = Enable; Logic-low = Shutdown. Do not leave open.
4	4	BYP	Reference Bypass: Connect external 0.01 µF ≤ C_{BYP} ≤ 1.0 µF capacitor to GND to reduce output noise. May be left open.
5	3	OUT	Regulator output.
—	5	NC	Pin is not connected internally. Pin may be connected to ground or may be left floating.

4.0 APPLICATION INFORMATION

4.1 Enable/Shutdown

The MIC5265 comes with an active-high enable pin that allows the regulator in each output to be disabled. Forcing the enable pin low disables the regulator and sends it into a “zero” off-mode current state. In this state, current consumed by the regulator goes nearly to zero. Forcing the enable pin high enables the output voltage. This part is CMOS and the enable pin cannot be left floating; a floating enable pin may cause an indeterminate state on the output.

4.2 Input Capacitor

The MIC5265 is a high performance, high bandwidth device. Therefore, it requires well-bypassed input supplies for optimal performance. A 1 µF capacitor is required from the input to ground to provide stability. Low-ESR ceramic capacitors provide optimal performance at a minimum of space. Additional high frequency capacitors, such as small valued NPO dielectric type capacitors, help filter out high-frequency noise and are good practice in any RF-based circuit.

4.3 Output Capacitor

The MIC5265 requires an output capacitor for stability. The design requires 1 µF or greater on each output to maintain stability. The design is optimized for use with low-ESR ceramic chip capacitors. High ESR capacitors may cause high frequency oscillation. The maximum recommended ESR is 300 mΩ. The output capacitor can be increased, but performance has been optimized for a 1 µF ceramic output capacitor and does not improve significantly with larger capacitance.

X7R/X5R dielectric-type ceramic capacitors are recommended because of their temperature performance. X7R type capacitors change capacitance by 15% over their operating temperature range and are the most stable type of ceramic capacitors. Z5U and Y5V dielectric capacitors change value by as much as 50% and 60%, respectively, over their operating temperature ranges. To use a ceramic chip capacitor with Y5V dielectric, the value must be much higher than an X7R ceramic capacitor to ensure the same minimum capacitance over the equivalent operating temperature range.

4.4 Bypass Capacitor

A capacitor can be placed from the noise bypass pin to ground to reduce output voltage noise. The capacitor bypasses the internal reference. A 0.01 µF capacitor is recommended for applications that require low-noise outputs. The bypass capacitor can be increased, further reducing noise and improving PSRR. Turn-on time increases slightly with respect to bypass capacitance. A unique quick-start circuit allows the MIC5265 to drive a large capacitor on the bypass pin without significantly slowing turn-on time.

4.5 Active Shutdown

The MIC5265 also features an active shutdown clamp, which is an N-channel MOSFET that turns on when the device is disabled. This allows the output capacitor and load to discharge, de-energizing the load.

4.6 No-Load Stability

The MIC5265 will remain stable and in regulation with no load unlike many other voltage regulators. This is especially important in CMOS RAM keep-alive applications.

4.7 Thermal Considerations

The MIC5265 is designed to provide 150 mA of continuous current per output in a very small package. Maximum ambient operating temperature can be calculated based on the output current and the voltage drop across the part. Given that the input voltage is 5.0V, the output voltage is 2.8V, and the output current is 100 mA.

The actual power dissipation of the regulator circuit can be determined using the following equation:

EQUATION 4-1:

$$P_D = (V_{IN} - V_{OUT}) \times I_{OUT} + V_{IN} \times I_{GND}$$

Because this device is CMOS and the ground current is typically <100 µA over the load range, the power dissipation contributed by the ground current is less than 1% and can be ignored for this calculation.

EQUATION 4-2:

$$P_D = (5.0V - 2.8V) \times 150mA$$

$$P_D = 0.33W$$

To determine the maximum ambient operating temperature of the package, use the junction-to-ambient thermal resistance of the device and the following basic equation:

EQUATION 4-3:

$$P_{D(MAX)} = \left(\frac{T_{J(MAX)} - T_A}{\theta_{JA}}\right)$$

Where:

$T_{J(MAX)}$ = 125°C, the max. junction temp. of the die

θ_{JA} = Thermal resistance of 235°C/W for the TSOT-23-5 package.

TABLE 4-1: THERMAL RESISTANCE

Package	θ_{JA} Rec. Min. Footprint	θ_{JA} 1” Sq. Copper Clad	θ_{JC}
Thin SOT-23-5	235°C/W	125°C	145°C/W
UDFN-6	100°C/W	—	—

Substituting P_D for $P_{D(MAX)}$ and solving for the ambient operating temperature will give the maximum operating conditions for the regulator circuit. The junction-to-ambient thermal resistance for the minimum footprint is 235°C/W. The maximum power dissipation must not be exceeded for proper operation.

For example, when operating the MIC5265-2.8YD5 at an input voltage of 5.0V at 150 mA with a minimum footprint layout, the maximum ambient operating temperature T_A can be determined as follows:

EQUATION 4-4:

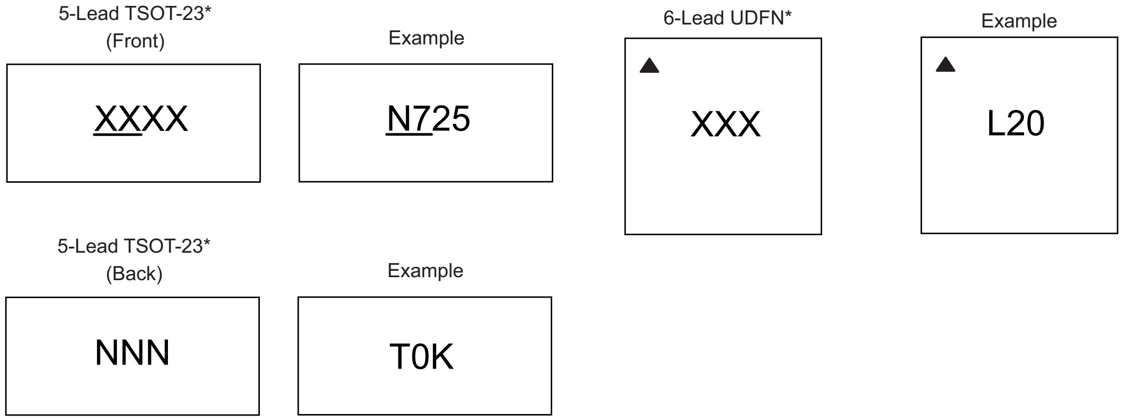
$$0.33\,W = \frac{125°C - T_A}{235°\mathrm{C/W}}$$

$$T_A = 47.45°C$$

Therefore, a 2.8V application at 150 mA of output current can accept an ambient operating temperature of 47°C in a TSOT-23-5 package. For a full discussion of heat sinking and thermal effects on voltage regulators, refer to the “Regulator Thermals” section of Microchip’s Designing with Low-Dropout Voltage Regulators handbook.

5.0 PACKAGING INFORMATION

5.1 Package Marking Information



Legend:

XX...X	Product code or customer-specific information
Y	Year code (last digit of calendar year)
YY	Year code (last 2 digits of calendar year)
WW	Week code (week of January 1 is week '01')
NNN	Alphanumeric traceability code
(e3)	Pb-free JEDEC® designator for Matte Tin (Sn)
*	This package is Pb-free. The Pb-free JEDEC designator ((e3)) can be found on the outer packaging for this package.

●, ▲, ▼ Pin one index is identified by a dot, delta up, or delta down (triangle mark).

Note: In the event the full Microchip part number cannot be marked on one line, it will be carried over to the next line, thus limiting the number of available characters for customer-specific information. Package may or may not include the corporate logo.

Underbar (_) symbol may not be to scale.

Note: If the full seven-character YYWWNNN code cannot fit on the package, the following truncated codes are used based on the available marking space:
6 Characters = YWWNNN; 5 Characters = WWNNN; 4 Characters = WNNN; 3 Characters = NNN;
2 Characters = NN; 1 Character = N

TABLE 5-1: TSOT-23 PACKAGE OPTION MARKING CODES

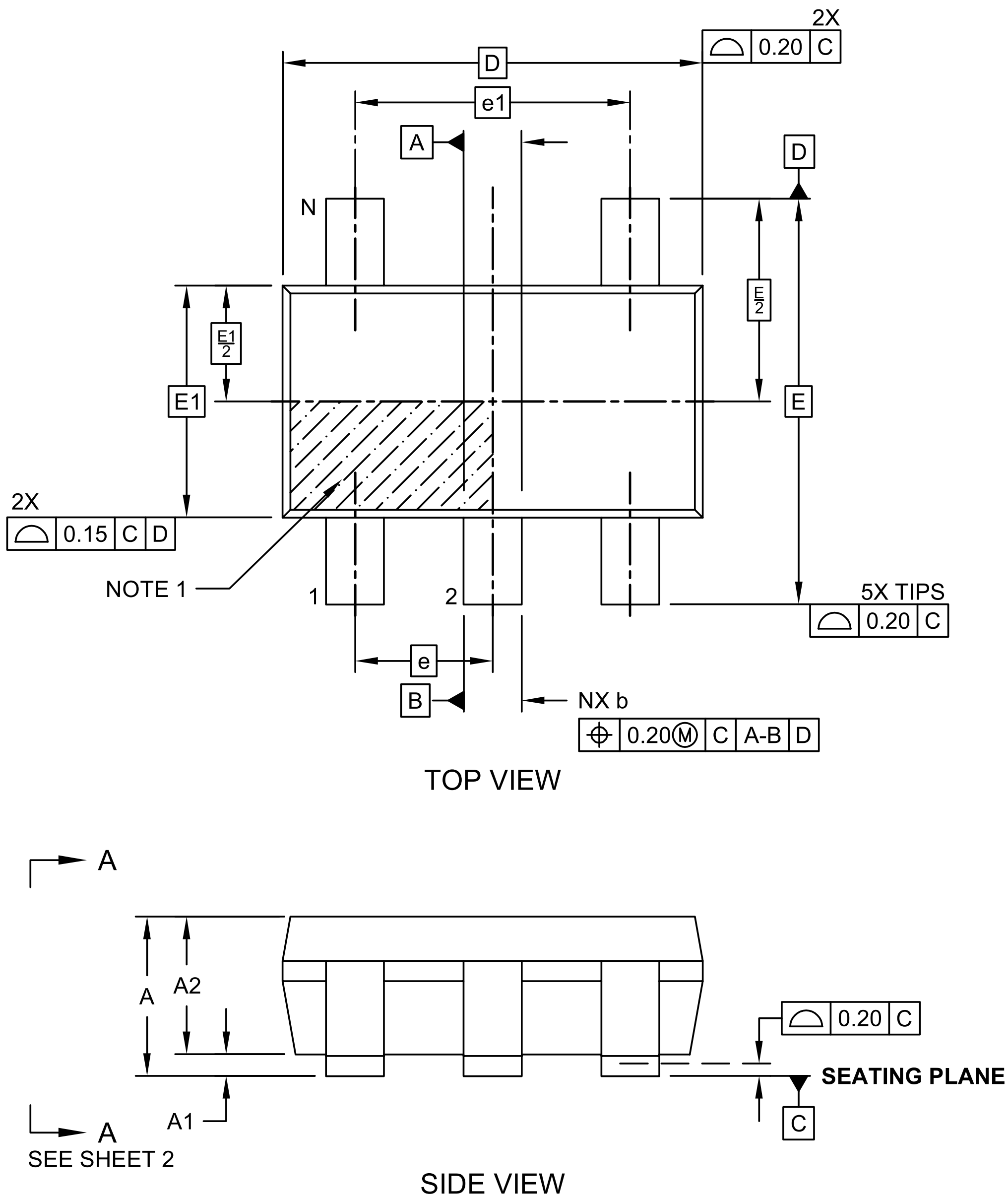
Part Number	Marking Code	Voltage	Part Number	Marking Code	Voltage
MIC5265-1.5YD5	N715	1.5V	MIC5265-2.85YD5	N72J	2.85V
MIC5265-1.8YD5	N718	1.8V	MIC5265-2.9YD5	N729	2.9V
MIC5265-1.85YD5	N71J	1.85V	MIC5265-3.0YD5	N730	3.0V
MIC5265-2.5YD5	N725	2.5V	MIC5265-3.1YD5	N731	3.1V
MIC5265-2.6YD5	N726	2.6V	MIC5265-3.2YD5	N732	3.2V
MIC5265-2.7YD5	N727	2.7V	MIC5265-3.3YD5	N733	3.3V
MIC5265-2.8YD5	N728	2.8V	—	—	—

TABLE 5-2: UDFN-6 PACKAGE OPTION MARKING CODES

Part Number	Marking Code	Voltage
MIC5265-2.0YMT	L20	2.0V
MIC5265-2.8YMT	L28	2.8V
MIC5265-2.9YMT	L29	2.9V
MIC5265-3.0YMT	L30	3.0V
MIC5265-3.3YMT	L33	3.3V

5-Lead Plastic Thin Small Outline Transistor (D5A) [TSOT]
Micrel Legacy Package TSOT-5LD-PL-1

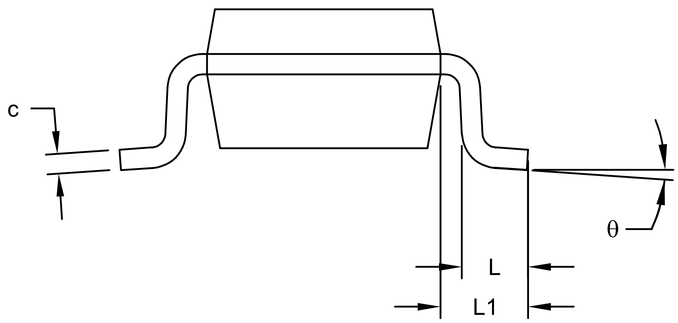
Note:	For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



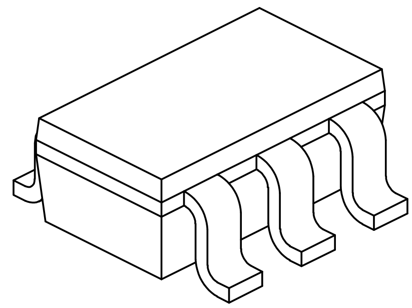
Microchip Technology Drawing C04-1179 Rev A Sheet 1 of 2

5-Lead Plastic Thin Small Outline Transistor (D5A) [TSOT]
Micrel Legacy Package TSOT-5LD-PL-1

Note:	For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



VIEW A-A
SHEET 1



		Units	MILLIMETERS	
Dimension Limits		MIN	NOM	MAX
Number of Leads	N		5	
Pitch	e		0.95 BSC	
Outside lead pitch	e1		1.90 BSC	
Overall Height	A	-	-	1.00
Molded Package Thickness	A2	0.84	0.87	0.90
Standoff	A1	0.00	-	0.10
Overall Width	E		2.80 BSC	
Molded Package Width	E1		1.60 BSC	
Overall Length	D		2.90 BSC	
Foot Length	L	0.30	0.40	0.50
Footprint	L1		0.60 REF	
Foot Angle	ϕ	0°	-	4°
Lead Thickness	c		0.127 REF	
Lead Width	b	0.30	-	0.50

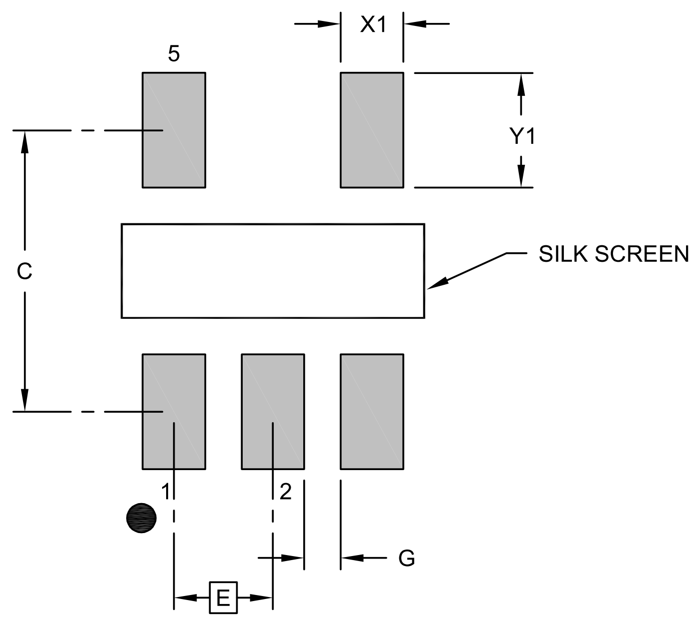
Notes:

1. Dimensions D and E1 do not include mold flash or protrusions. Mold flash or protrusions shall not exceed 0.25mm per side.
2. Dimensioning and tolerancing per ASME Y14.5M
   BSC: Basic Dimension. Theoretically exact value shown without tolerances.
   REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1179 Rev A Sheet 1 of 2

5-Lead Plastic Thin Small Outline Transistor (D5A) [TSOT]
Micrel Legacy Package TSOT-5LD-PL-1

Note: For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



RECOMMENDED LAND PATTERN

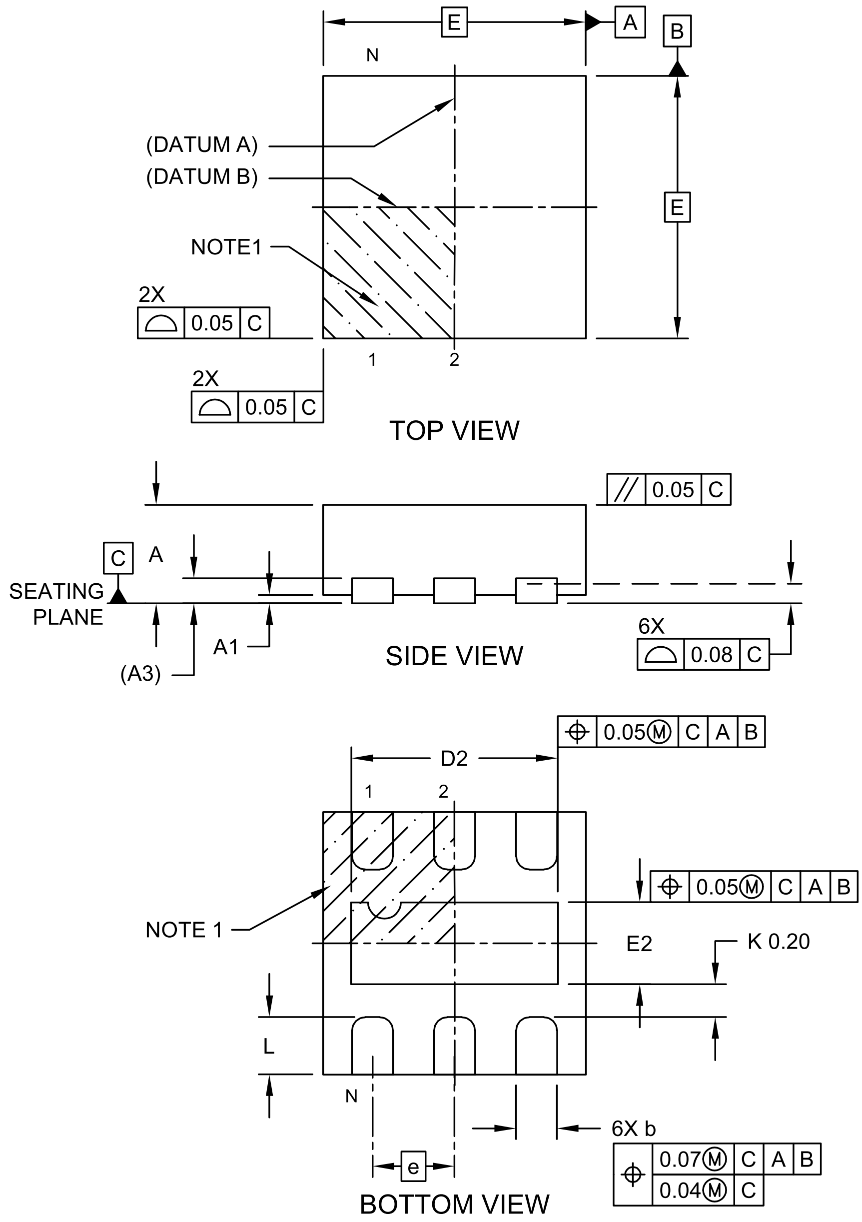
Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E	0.95 BSC		
Contact Pad Spacing	C		2.60	
Contact Pad Width (X5)	X1			0.60
Contact Pad Length (X5)	Y1			1.10
Contact Pad to Center Pad (X2)	G	0.20		

Notes:
1. Dimensioning and tolerancing per ASME Y14.5M
   BSC: Basic Dimension. Theoretically exact value shown without tolerances.

Microchip Technology Drawing C04-3179 Rev A

6-Lead Ultra Thin Plastic Dual Flat, No Lead (HKA) - 1.6x1.6x0.6 mm Body [UDFN] With 1.26x0.50 mm Exposed Pad; Micrel Legacy Package TDFN1616-6LD-PL-1

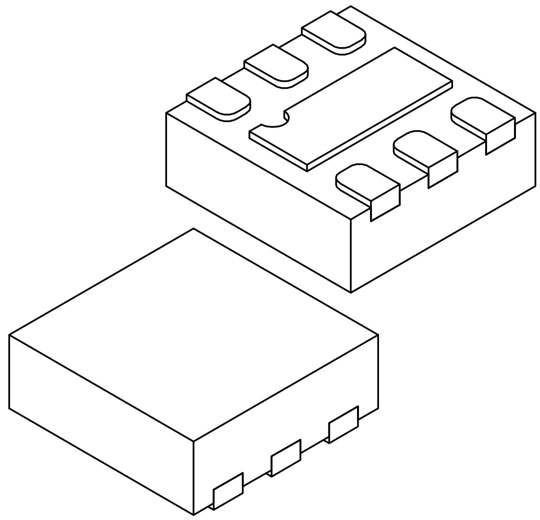
Note:	For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



Microchip Technology Drawing C04-1154 Rev A Sheet 1 of 2

6-Lead Ultra Thin Plastic Dual Flat, No Lead (HKA) - 1.6x1.6x0.6 mm Body [UDFN] With 1.26x0.50 mm Exposed Pad; Micrel Legacy Package TDFN1616-6LD-PL-1

Note:	For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N		6	
Pitch	e		0.50 BSC	
Overall Height	A	0.50	0.55	0.60
Standoff	A1	0.00	0.02	0.05
Terminal Thickness	A3		0.152 REF	
Overall Length	D		1.60 BSC	
Exposed Pad Length	D2	1.21	1.26	1.31
Overall Width	E		1.60 BSC	
Exposed Pad Width	E2	0.45	0.50	0.55
Terminal Width	b	0.20	0.25	0.30
Terminal Length	L	0.30	0.35	0.40
Terminal-to-Exposed-Pad	K	0.20	–	–

Notes:

1. Pin 1 visual index feature may vary, but must be located within the hatched area.
2. Package is saw singulated
3. Dimensioning and tolerancing per ASME Y14.5M

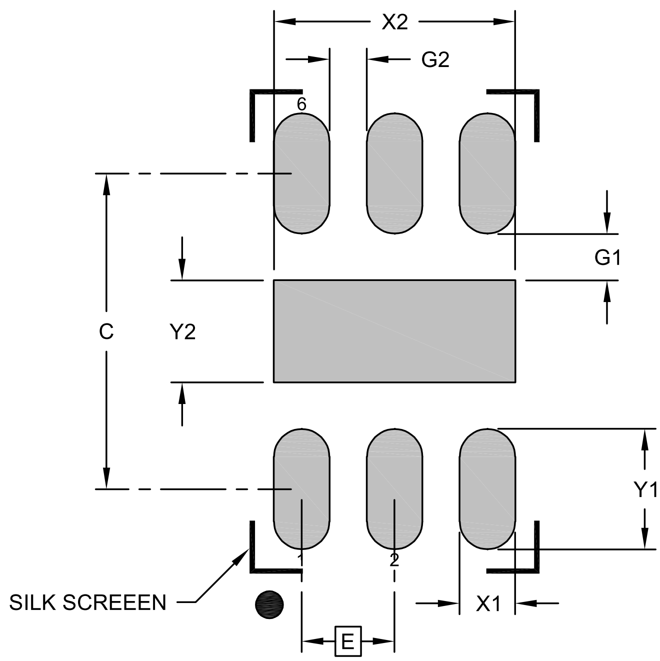
   BSC: Basic Dimension. Theoretically exact value shown without tolerances.

   REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1154 Rev A Sheet 2 of 2

6-Lead Ultra Thin Plastic Dual Flat, No Lead (HKA) - 1.6x1.6x0.6 mm Body [UDFN] With 1.26x0.50 mm Exposed Pad; Micrel Legacy Package TDFN1616-6LD-PL-1

Note:	For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E		0.50 BSC	
Center Pad Width	X2			1.30
Center Pad Length	Y2			0.55
Contact Pad Spacing	C		1.70	
Contact Pad Width (X6)	X1			0.30
Contact Pad Length (X6)	Y1			0.65
Contact Pad to Center Pad (X6)	G1	0.25		
Contact Pad to Contact Pad (X4)	G2	0.20		

Notes:

1. Dimensioning and tolerancing per ASME Y14.5M

   BSC: Basic Dimension. Theoretically exact value shown without tolerances.

Microchip Technology Drawing C04-3154 Rev A

NOTES:

APPENDIX A: REVISION HISTORY

Revision A (August 2022)

- Converted Micrel document MIC5265 to Microchip data sheet DS20006714A.
- Minor text changes throughout.
- Added UDFN-6 option. Updated sections include Features, Applications, General Description, Package Types, Electrical Characteristics table, Package Marking Information, and the Product Identification System section.

NOTES:

PRODUCT IDENTIFICATION SYSTEM

To order or obtain information, e.g., on pricing or delivery, contact your local Microchip representative or sales office.

Part Number	-X.X	X	XX	-XX
Device	Output Voltage	Temp. Range	Package	Media Type

Device:	MIC5265:	150 mA µCap LDO Regulator
Output Voltage:	1.5 = 1.5V (TSOT-23 only) 1.8 = 1.8V (TSOT-23 only) 1.85 = 1.85V (TSOT-23 only) 2.0 = 2.0V (UDFN only) 2.5 = 2.5V (TSOT-23 only) 2.6 = 2.6V (TSOT-23 only) 2.7 = 2.7V (TSOT-23 only) 2.8 = 2.8V 2.85 = 2.85V (TSOT-23 only) 2.9 = 2.9V 3.0 = 3.0V 3.1 = 3.1V (TSOT-23 only) 3.2 = 3.2V (TSOT-23 only) 3.3 = 3.3V	
Temperature Range:	Y = –40°C to +125°C	
Package:	D5 = 5-Lead Thin SOT-23 MT = 1.6 mm x 1.6 mm UDFN-6	
Media Type:	TR = 5,000/Reel (UDFN-6 option only) TR = 3,000/Reel (TSOT-23-5 option only) TX = 3,000/Reel (Reverse Orientation, TSOT-23-5 option only)	

Examples:

a) MIC5625-2.5YD5-TR: MIC5265, 2.5V Output Voltage, –40°C to +125°C Temp. Range, 5-Lead TSOT-23, 3,000/Reel

b) MIC5625-2.8YD5-TX: MIC5625, 2.8V Output Voltage, –40°C to +125°C Temp. Range, 5-Lead TSOT-23, 3,000/Reel Reverse

c) MIC5625-5.0YD5-TR: MIC5625, 5.0V Output Voltage, –40°C to +125°C Temp. Range, 5-Lead TSOT-23, 3,000/Reel

d) MIC5625-3.2YD5-TX: MIC5625, 3.2V Output Voltage, –40°C to +125°C Temp. Range, 5-Lead TSOT-23, 3,000/Reel Reverse

e) MIC5625-1.85YD5-TR: MIC5625, 1.85V Output Voltage, –40°C to +125°C Temp. Range, 5-Lead TSOT-23, 3,000/Reel

f) MIC5625-3.3YD5-TX: MIC5625, 3.3V Output Voltage, –40°C to +125°C Temp. Range, 5-Lead TSOT-23, 3,000/Reel Reverse

g) MIC5625-2.0YMT-TR: MIC5625, 2.0V Output Voltage, –40°C to +125°C Temp. Range, UDFN-6, 5,000/Reel

h) MIC5625-2.9YMT-TR: MIC5625, 2.9V Output Voltage, –40°C to +125°C Temp. Range, UDFN-6, 5,000/Reel

i) MIC5625-3.0YMT-TR: MIC5625, 3.0V Output Voltage, –40°C to +125°C Temp. Range, UDFN-6, 5,000/Reel

j) MIC5625-3.3YMT-TX: MIC5625, 3.3V Output Voltage, –40°C to +125°C Temp. Range, UDFN-6, 5,000/Reel

Note 1: Tape and Reel identifier only appears in the catalog part number description. This identifier is used for ordering purposes and is not printed on the device package. Check with your Microchip Sales Office for package availability with the Tape and Reel option.

NOTES:

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