



	LBA126	Units
Load Voltage	250	V
Load Current	170	mA
Max R _{ON}	15	Ω

Features

- Small 8 Pin DIP Package
- Low Drive Power Requirements (TTL/CMOS Compatible)
- No Moving Parts
- High Reliability
- Arc-Free With No Snubbing Circuits
- 3750V_{RMS} Input/Output Isolation
- FCC Compatible
- VDE Compatible
- No EMI/RFI Generation
- Machine Insertable, Wave Solderable
- Surface Mount and Tape & Reel Versions Available

Applications

- Telecommunications
 - Telecom Switching
 - Tip/Ring Circuits
 - Modem Switching (Laptop, Notebook, Pocket Size)
 - Hookswitch
 - Dial Pulsing
 - Ground Start
 - Ringer Injection
- Instrumentation
 - Multiplexers
 - Data Acquisition
 - Electronic Switching
 - I/O Subsystems
 - Meters (Watt-Hour, Water, Gas)
- Medical Equipment-Patient/Equipment Isolation
- Security
- Aerospace
- Industrial Controls

Description

LBA126 is 250V, 170mA, 15Ω independent 1-Form-A and 1-Form-B relays. It features lower on-resistance with enhanced peak load current handling capabilities.

Approvals

- UL Recognized: File Number E76270
- CSA Certified: File Number LR 43639-10
- BSI Certified to:
 - BS EN 60950:1992 (BS7002:1992)
Certificate #: 7344
 - BS EN 41003:1993
Certificate #: 7344

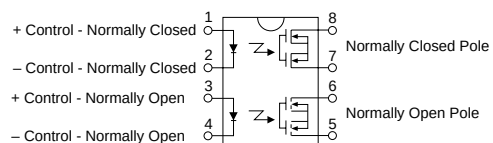
Ordering Information

Part #	Description
LBA126	8 Pin DIP (50/Tube)
LBA126P	8 Pin Flatpack (50/Tube)
LBA126PTR	8 Pin Flatpack (1000/Reel)
LBA126S	8 Pin Surface Mount (50/Tube)
LBA126STR	8 Pin Surface Mount (50/Reel)

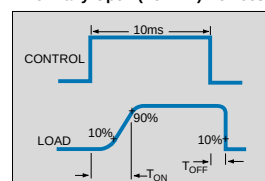
Pin Configuration

LBA126 Pinout

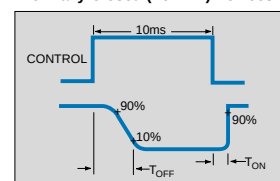
AC/DC Configuration



Switching Characteristics of Normally Open (Form A) Devices



Switching Characteristics of Normally Closed (Form B) Devices



Absolute Maximum Ratings (@ 25° C)

Parameter	Min	Typ	Max	Units
Input Power Dissipation	-	-	150 ¹	mW
Input Control Current Peak (10ms)	-	-	50 1	mA A
Reverse Input Voltage	-	-	5	V
Total Power Dissipation	-	-	800 ²	mW
Isolation Voltage Input to Output	3750	-	-	V _{RMS}
Operational Temperature	-40	-	+85	°C
Storage Temperature	-40	-	+125	°C
Soldering Temperature DIP Package	-	-	+260	°C
Flatpack/Surface Mount Package (10 Seconds Max.)	-	-	+220	°C

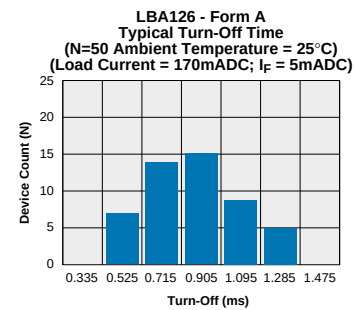
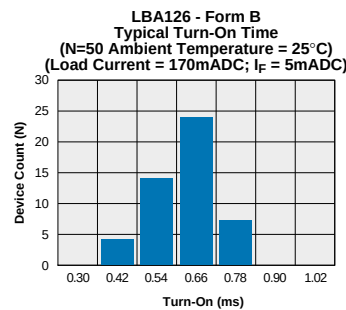
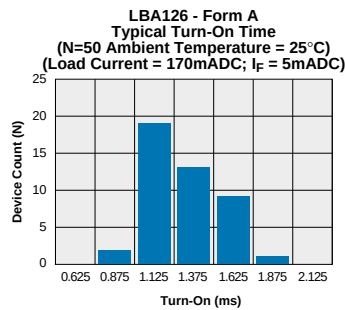
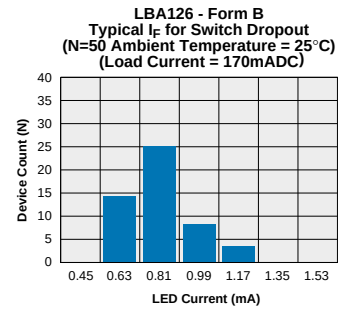
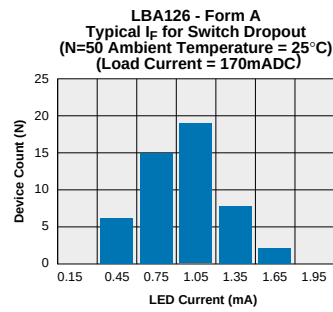
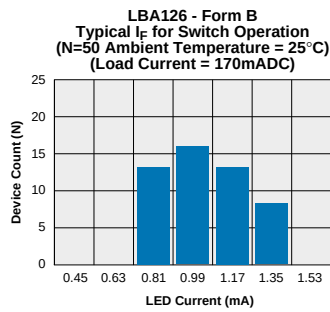
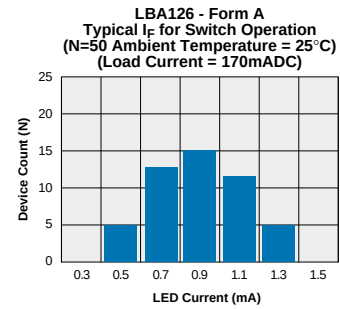
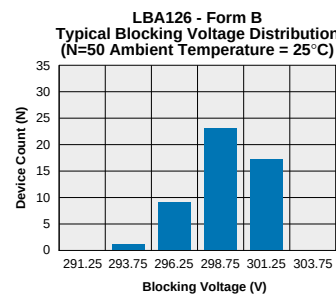
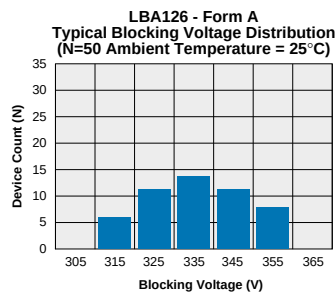
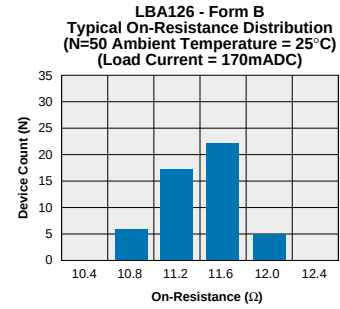
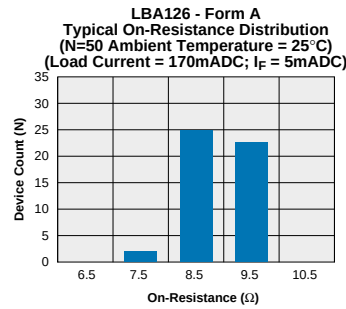
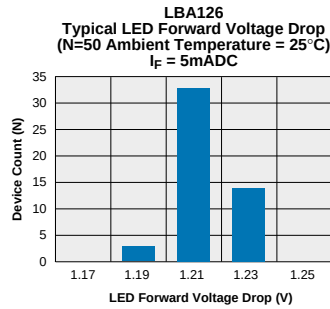
¹ Derate Linearly 1.33 mW/°C² Derate Linearly 6.67 mW/°C

Absolute Maximum Ratings are stress ratings. Stresses in excess of these ratings can cause permanent damage to the device. Functional operation of the device at these or any other conditions beyond those indicated in the operational sections of this data sheet is not implied. Exposure of the device to the absolute maximum ratings for an extended period may degrade the device and effect its reliability.

Electrical Characteristics

Parameter	Conditions	Symbol	Min	Typ	Max	Units
Output Characteristics @ 25°C						
Load Voltage (Peak)	-	V _{ON}	-	-	250	V
Load Current *(Continuous)	-	I _{ON}	-	-	170	mA
AC/DC Configuration	-	I _{ON}	-	-	170	mA
Peak Load Current	10ms	I _{LPK}	-	-	-	mA
On-Resistance	-	R _{ON}	-	10	15	Ω
AC/DC Configuration	I _L =170mA	R _{ON}	-	10	15	Ω
Off-State Leakage Current	V _L =250V	I _{LEAK}	-	-	1	μA
Switching Speeds	-	-	-	-	-	-
Turn-On	I _F =5mA, V _L =10V	T _{ON}	-	-	5	ms
Turn-Off	I _F =5mA, V _L =10V	T _{OFF}	-	-	5	ms
Output Capacitance	50V; f=1MHz	C _{OUT}	-	50	-	pF
Load Current Limiting	-	I _{CL}	-	-	-	mA
Capacitance Input to Output	-	-	-	3	-	pF
Input Characteristics @ 25°C						
Input Control Current	I _L =170mA	I _F	5	-	50	mA
Input Dropout Current	-	-	0.4	0.7	-	mA
Input Voltage Drop	I _F =5mA	V _F	0.9	1.2	1.4	V
Reverse Input Voltage	-	V _R	-	-	5	V
Reverse Input Current	V _R =5V	I _R	-	-	10	μA
Common Characteristics @ 25°C						
Input to Output Capacitance	-	C _{I/O}	-	3	-	pF
Input to Output Isolation	-	V _{I/O}	3750	-	-	V _{RMS}

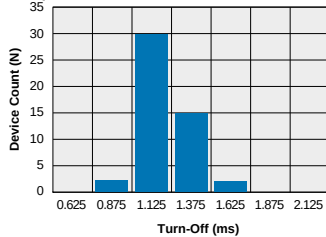
*NOTE: If both poles operate simultaneously load current must be derated so as not to exceed the package power dissipation value.

PERFORMANCE DATA*


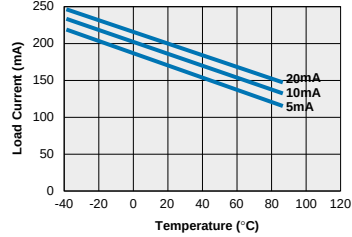
The Performance data shown in the graphs above is typical of device performance. For guaranteed parameters not indicated in the written specifications, please contact our application department.

PERFORMANCE DATA*

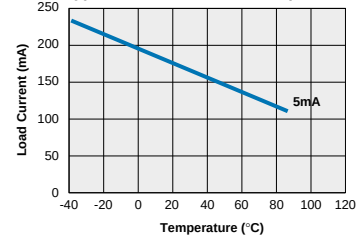
LBA126 - Form B
Typical Turn-Off Time
(N=50 Ambient Temperature = 25°C)
(Load Current = 170mADC; $I_F = 5\text{mADC}$)



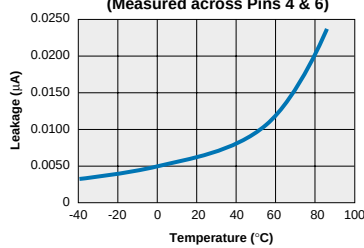
LBA126 - Form A
Typical Load Current vs. Temperature



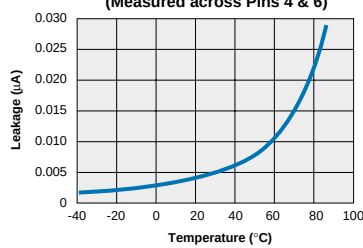
LBA126 - Form B
Typical Load Current vs. Temperature



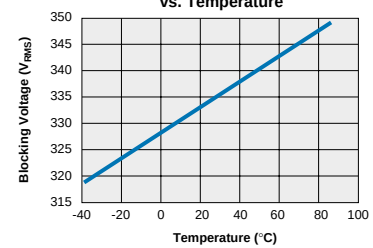
LBA126 - Form A
Typical Leakage vs. Temperature
(Measured across Pins 4 & 6)



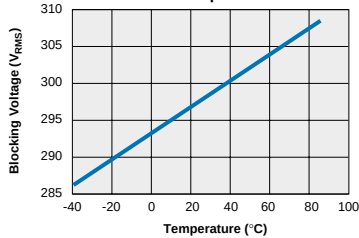
LBA126 - Form B
Typical Leakage vs. Temperature
(Measured across Pins 4 & 6)



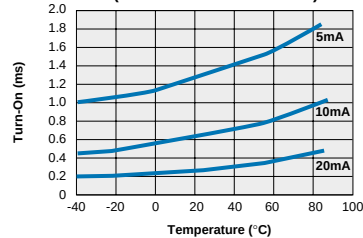
LBA126 - Form A
Typical Blocking Voltage
vs. Temperature



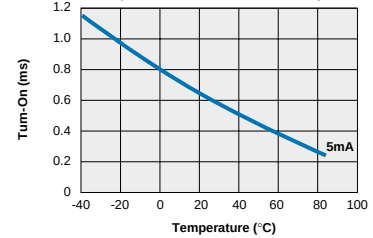
LBA126 - Form B
Typical Blocking Voltage
vs. Temperature



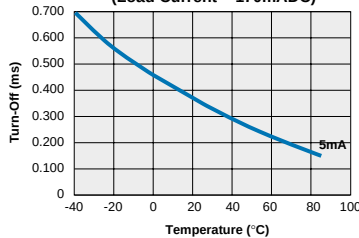
LBA126 - Form A
Typical Turn-On vs. Temperature
(Load Current = 170mADC)



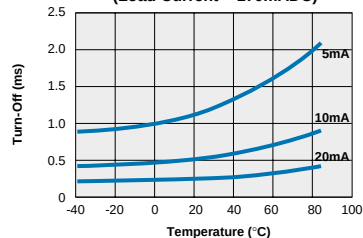
LBA126 - Form B
Typical Turn-On vs. Temperature
(Load Current = 170mADC)



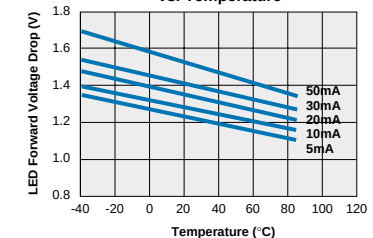
LBA126 - Form A
Typical Turn-Off vs. Temperature
(Load Current = 170mADC)



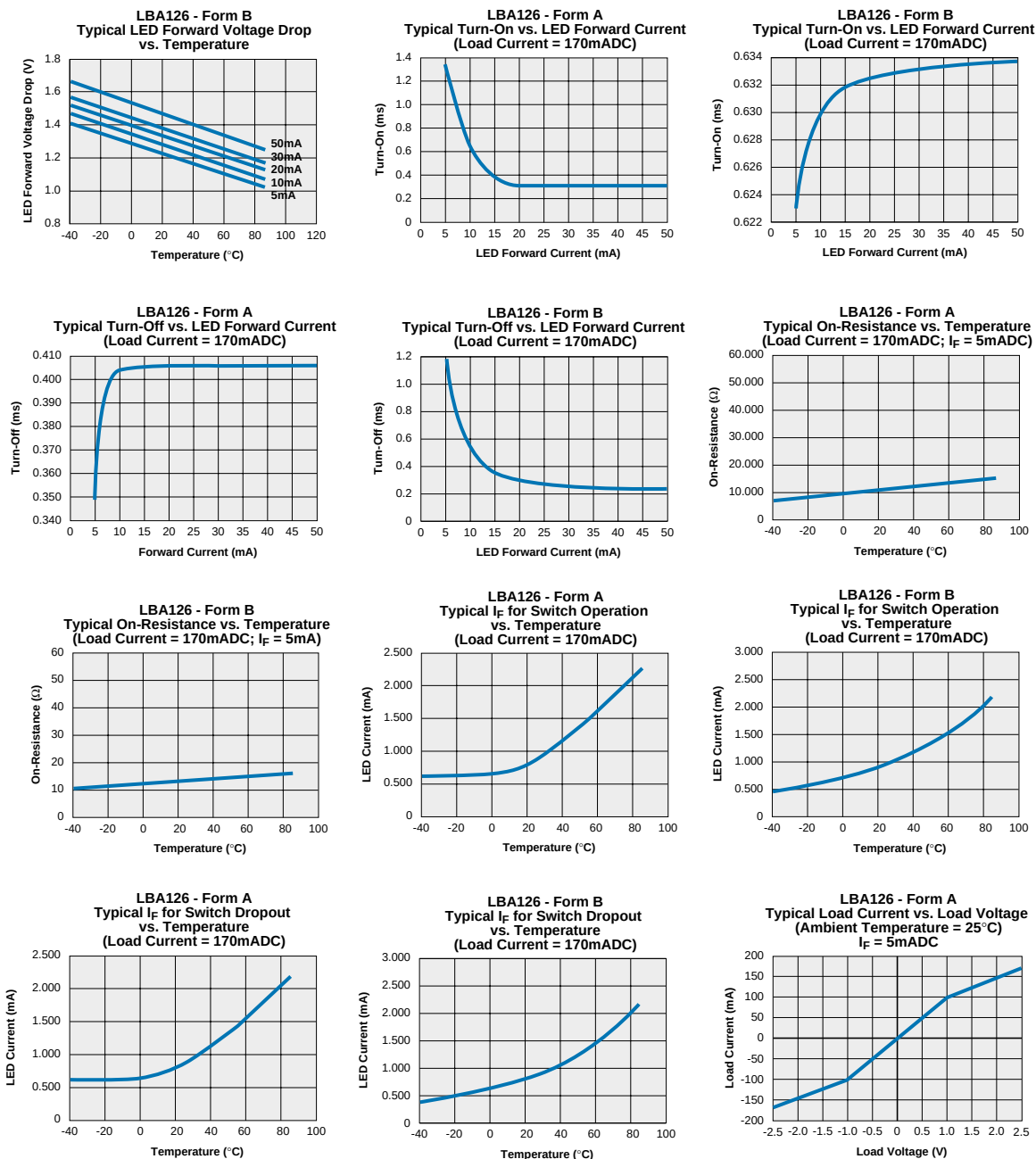
LBA126 - Form B
Typical Turn-Off vs. Temperature
(Load Current = 170mADC)



LBA126 - Form A
Typical LED Forward Voltage Drop
vs. Temperature

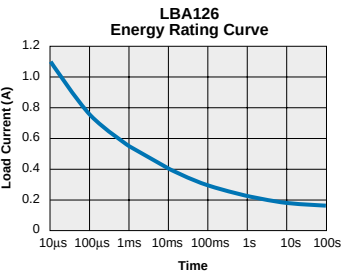
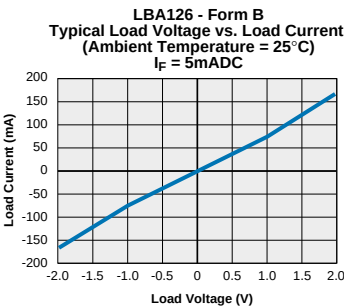


*The Performance data shown in the graphs above is typical of device performance. For guaranteed parameters not indicated in the written specifications, please contact our application department.

PERFORMANCE DATA*


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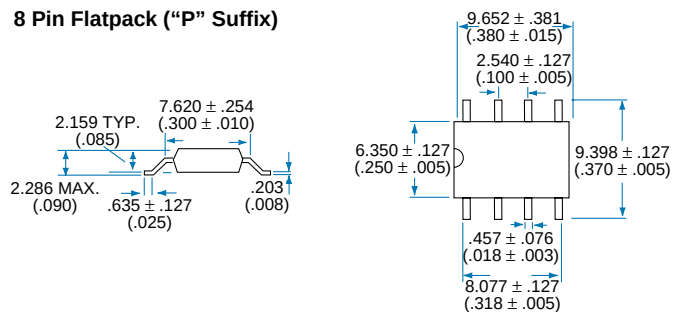
PERFORMANCE DATA*



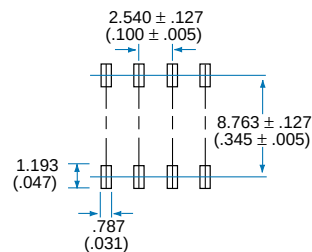
*The Performance data shown in the graphs above is typical of device performance. For guaranteed parameters not indicated in the written specifications, please contact our application department.

Mechanical Dimensions

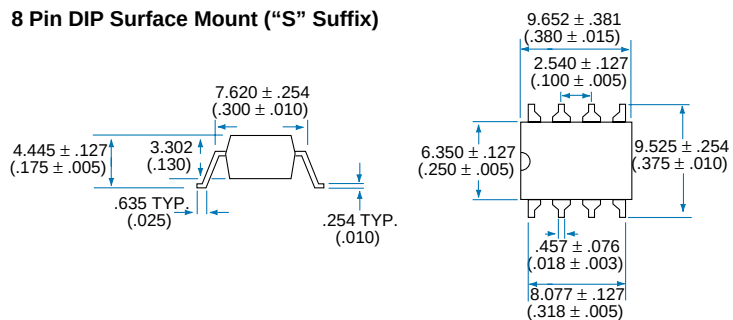
8 Pin Flatpack ("P" Suffix)



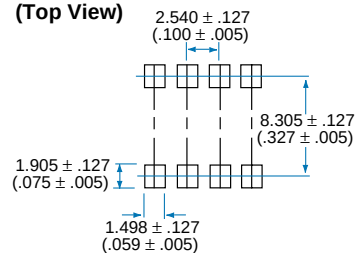
PC Board Pattern (Top View)



8 Pin DIP Surface Mount ("S" Suffix)



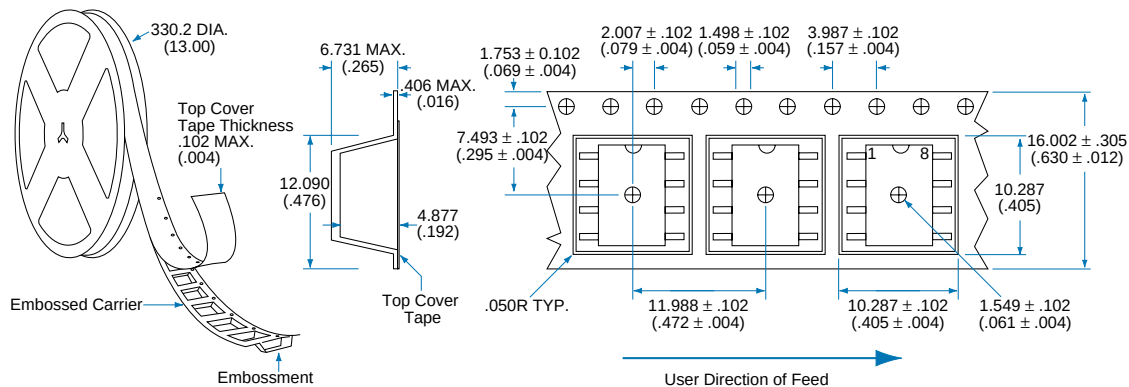
PC Board Pattern (Top View)



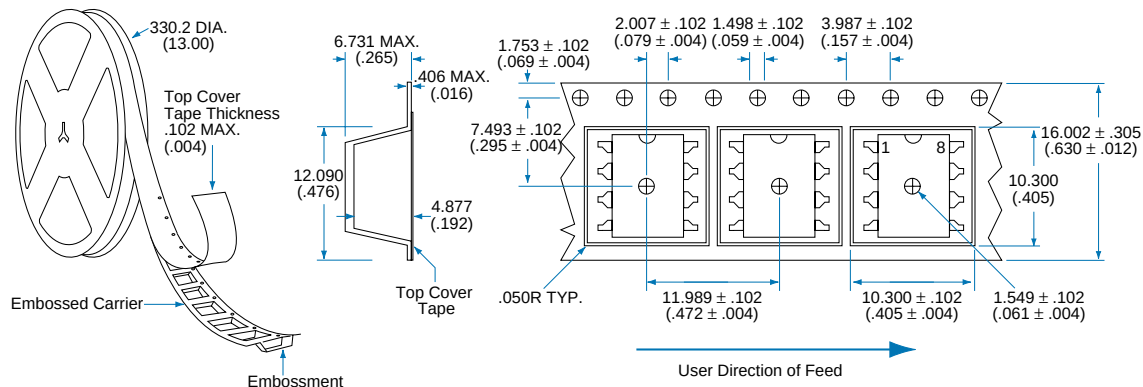
Dimensions
mm
(inches)

Mechanical Dimensions

Tape and Reel Packaging for 8 Pin Flatpack Package



Tape and Reel Packaging for 8 Pin Surface Mount Package



Dimensions
mm
(inches)

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