



	PAA132	Units
Blocking Voltage	50	V
Load Current	600	mA
Max R _{ON}	1	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
- No EMI/RFI Generation
- Machine Insertable, Wave Solderable
- Surface Mount and Tape & Reel Versions Available

Applications

- Instrumentation
 - Multiplexers
 - Data Acquisition
 - Electronic Switching
 - I/O Subsystems
 - Meters (Watt-Hour, Water, Gas)
- Medical Equipment—Patient/Equipment Isolation
- Security
- Aerospace
- Industrial Controls
- Automotive

Description

PAA132 is a dual 50V, 600mA, 1Ω 1-Form-A relay. This performance leader features very high load current handling capabilities. The dual pole relays save board space by incorporating both relays in a single 8-pin package.

Approvals

- UL Recognized: File Number E76270
- CSA Certified: File Number LR 43639-10
- Certified to:
 - EN 60950
 - EN 41003

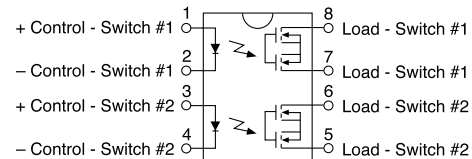
Ordering Information

Part #	Description
PAA132	8 Pin DIP (50/Tube)
PAA132S	8 Pin Surface Mount (50/Tube)
PAA132STR	8 Pin Surface Mount (1,000/Reel)

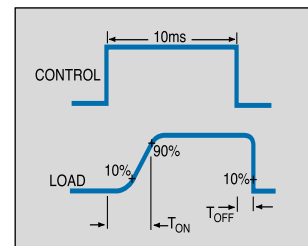
Pin Configuration

PAA132 Pinout

AC/DC Configuration



Switching Characteristics of Normally Open (Form A) Devices



Absolute Maximum Ratings (@ 25° C)

Parameter	Min	Typ	Max	Units
Input Power Dissipation	-	-	150 ¹	mW
Input Control Current	-	-	50	mA
Peak (10ms)	-	-	1	A
Reverse Input Voltage	-	-	5	V
Blocking Voltage	-	-	50	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
Surface Mount Package (10 Seconds Max.)	-	-	+220	°C

¹ Derate Linearly 1.33 mw/°C

² Derate Linearly 6.67 mw/°C

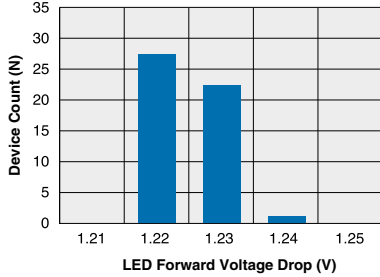
Absolute Maximum Ratings are stress ratings. Stresses in excess of these ratings can cause permanent damage to the device. Functional operation of the device at conditions beyond those indicated in the operational sections of this data sheet is not implied.

Electrical Characteristics

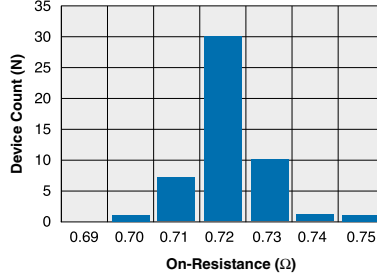
Parameter	Conditions	Symbol	Min	Typ	Max	Units
Output Characteristics @ 25°C						
Load Current (Continuous)						
AC/DC Configuration	-	I_L	-	-	600	mA
DC Configuration	-	I_L	-	-	1.2	A
Peak Load Current	10ms	I_{LPK}	-	-	2.0	A
On-Resistance						
AC/DC Configuration	$I_L=600\text{mA}$	R_{ON}	-	-	1.0	Ω
DC Configuration	$I_L=1.0\text{A}$	R_{ON}	-	-	0.3	Ω
Off-State Leakage Current	$V_L=50\text{V}$	I_{LEAK}	-	-	1	μA
Switching Speeds						
Turn-On	$I_F=5\text{mA}, V_L=10\text{V}$	T_{ON}	-	-	5	ms
Turn-Off	$I_F=5\text{mA}, V_L=10\text{V}$	T_{OFF}	-	-	2	ms
Output Capacitance	50V; f=1MHz	-	-	100	-	pF
Input Characteristics @ 25°C						
Input Control Current	$I_L=600\text{mA}$	I_F	5	-	50	mA
Input Dropout Current	-	I_F	0.4	0.7	-	mA
Input Voltage Drop	$I_F=10\text{mA}$	V_F	0.9	1.2	1.4	V
Reverse Input Current	$V_R=5\text{V}$	I_R	-	-	10	μA
Common Characteristics @ 25°C						
Input to Output Capacitance	-	$C_{I/O}$	-	3	-	pF

PERFORMANCE DATA*

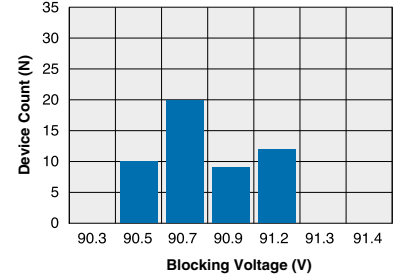
PAA132
Typical LED Forward Voltage Drop
(N=50 Ambient Temperature = 25°C)
 $I_F = 5\text{mA}$



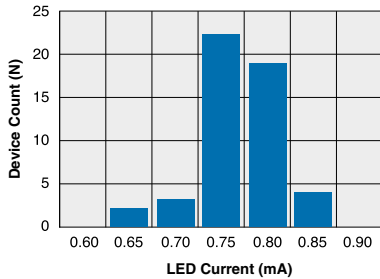
PAA132
Typical On-Resistance Distribution
(N=50 Ambient Temperature = 25°C)
(Load Current = 600mADC)



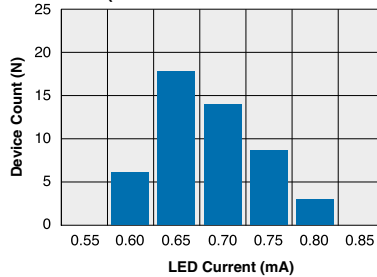
PAA132
Typical Blocking Voltage Distribution
(N=50 Ambient Temperature = 25°C)



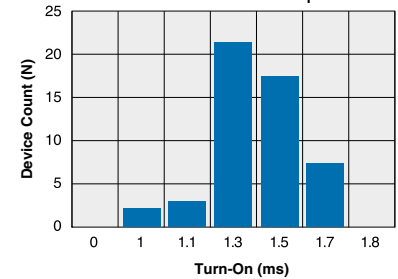
PAA132
Typical I_F for Switch Operation
Ambient Temperature = 25°C
Load Current = 600mA



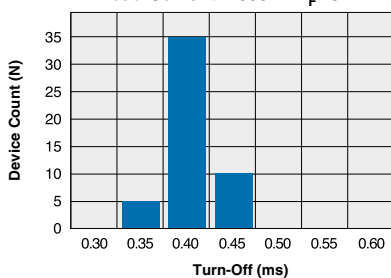
PAA132
Typical I_F for Switch Dropout
(N=50 Ambient Temperature = 25°C)
(Load Current = 120mADC)



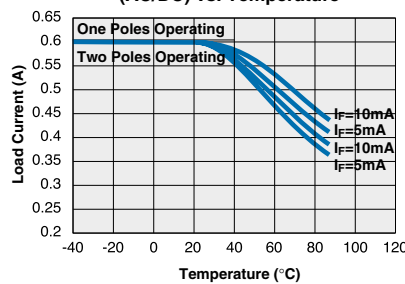
PAA132
Typical Turn-On Time
(N=50 Ambient Temperature = 25°C)
Load Current = 600mA $I_F = 5\text{mA}$



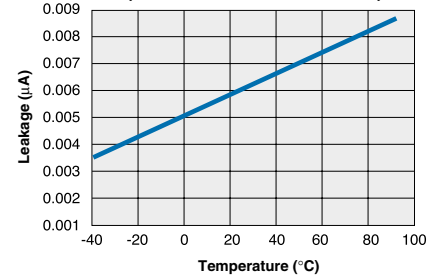
PAA132
Typical Turn-Off Time
(N=50 Ambient Temperature = 25°C)
Load Current = 600mA $I_F = 5\text{mA}$



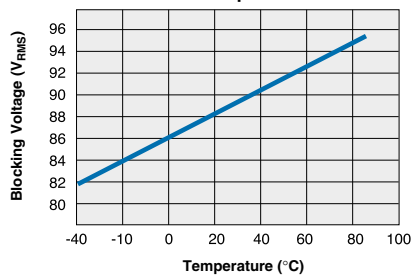
PAA132
Maximum Load Current
(AC/DC) vs. Temperature



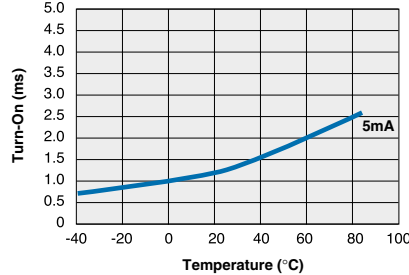
PAA132
Leakage vs. Temperature
(Measured Across Pins 6 & 4)



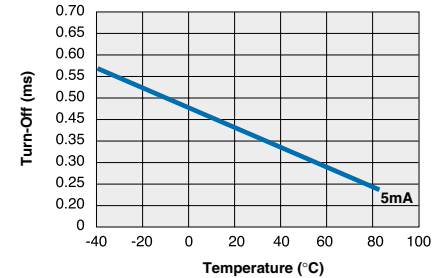
PAA132
Typical Blocking Voltage vs. Temperature



PAA132
Typical Turn-On vs. Temperature
Load Current = 600mA

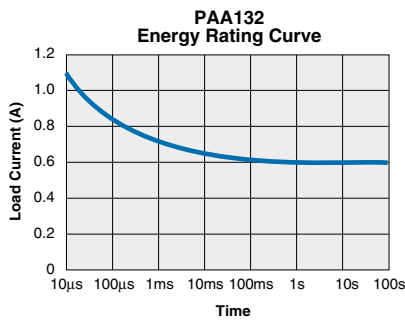
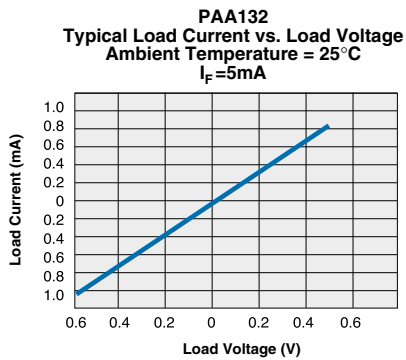
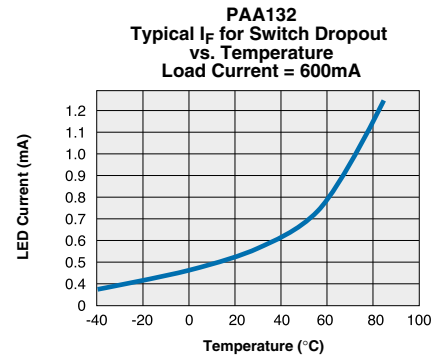
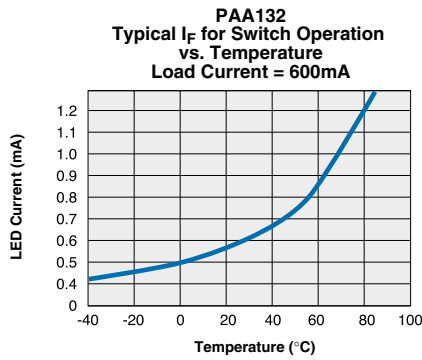
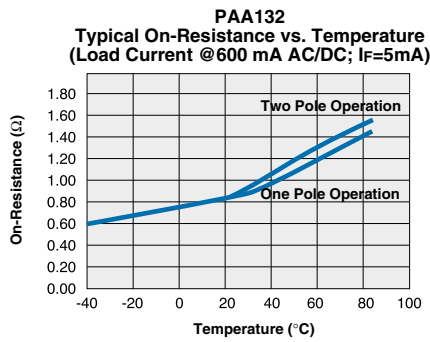
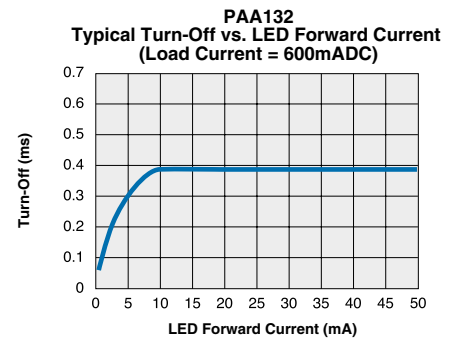
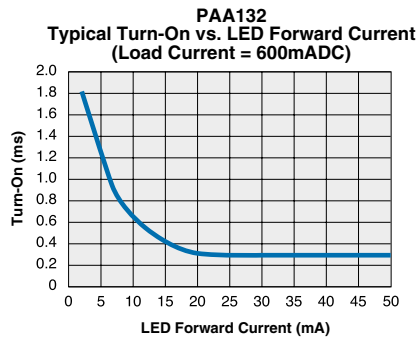
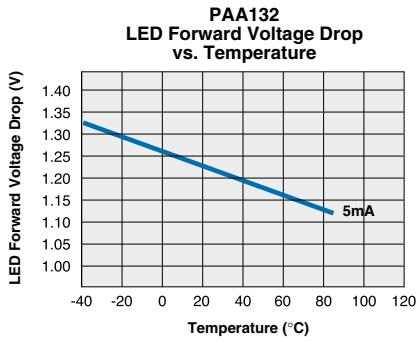


PAA132
Typical Turn-Off vs. Temperature
Load Current = 600mA



*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.

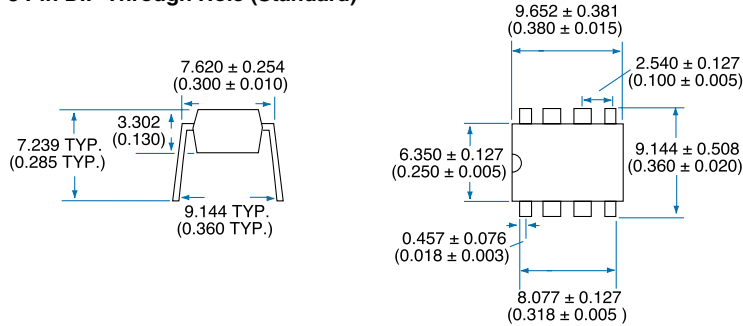
PERFORMANCE DATA*



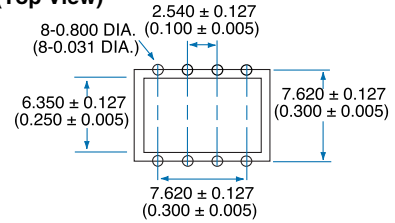
*The Performance data shown in the graphs above is typical of device performance. For guaranteed parameters not indicated in the written specifications, please contact our application department.

MECHANICAL DIMENSIONS

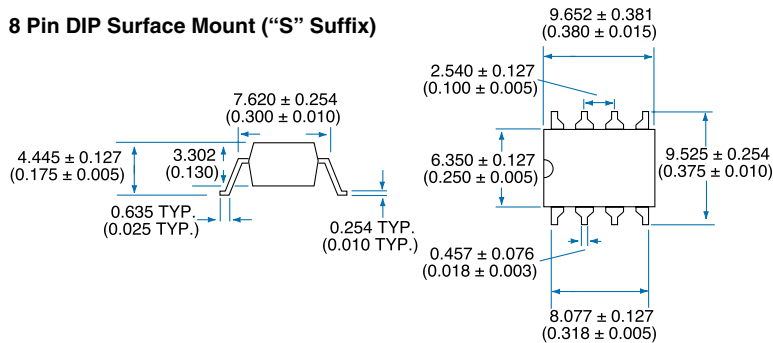
8 Pin DIP Through Hole (Standard)



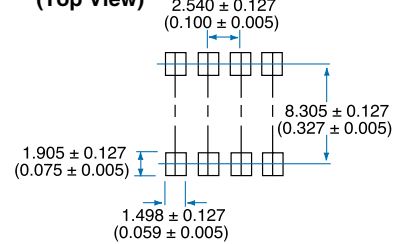
PC Board Pattern (Top View)



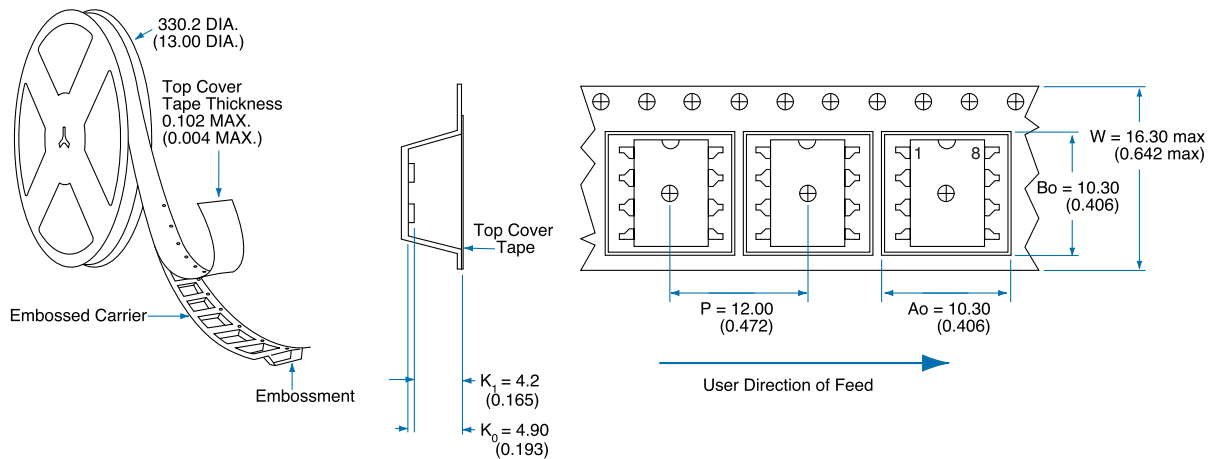
8 Pin DIP Surface Mount ("S" Suffix)



PC Board Pattern (Top View)



Tape and Reel Packaging for Surface Mount Package



NOTE: Tape dimensions not shown, comply with JEDEC Standard EIA-481-2

Dimensions
mm
(Inches)

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