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New Products


[AAT003-10E](#) TMR angle sensor

New Documents

[Isolator Catalog rev. 0](#)
(includes new QSOP Isolators and other new parts)

[Application Bulletin 24:](#)
IsoLoop Isolators have excellent thermal characteristics (see [story at right](#))

Spring Forward

 Daylight Saving Time begins Sunday, March 9. Set your clocks forward an hour.

It's also a good time to check smoke detectors and the thermal resistance of your isolators (see [story at right](#)).

St. Patrick's Riddle

Q. Why did St. Patrick drive all the snakes out of Ireland?



A. It was too far for them to crawl.

NVE's 25-Year Anniversary



NVE is celebrating its 25-year anniversary in March.

The company was founded in March 1989 as Nonvolatile Electronics, Inc. by Dr. James M. Daughton, a spintronics pioneer. Its first product, a ground-breaking GMR sensor, was introduced in 1994.

NVE is planning to celebrate with the world's largest birthday cake (the current record is 130,000 pounds)*, and a spectacular fireworks display in the company lobby.**

Some highlights of the past 25 years:

- Two **EDN Hot 100** Product awards
- An **EE Product News Top 20 Product**
- A **Forbes Top Small Public Company** four times
- An **Electronic Business' 30 Best Small Electronics Company**
- Two Technology **Fast 50** awards and a **Fast 500** award
- A **Tekne Innovation Award**

*It might be scaled back to a half-sheet cake from Supervalu.
**Fireworks may be canceled due to safety issues.

New Distributor Down Under



G'day to our new mates in Australia and New Zealand. [Active Components](#) is now distributing NVE's award-winning IsoLoop Isolator product line.

Active Components has a number of offices in Australia and New Zealand, and is considered the largest electronic component distributor in New Zealand.

Recent Exhibitions



Billed as the number one event for the embedded community, **Embedded**

World is underway in Nürnberg, Germany. Distributor HY LINE Power Components is showing IsoLoop isolators. [Isolated Bus Transceivers](#) are popular for embedded applications.

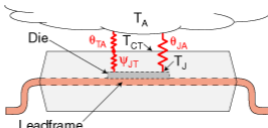
From the Application Desk

IsoLoop Isolators Have Excellent Thermal Characteristics

A frequent question to our Isolator applications desk is what is the thermal resistance of our isolator packages.

Award-winning IsoLoop® Isolators have excellent thermal characteristics, enabling the parts to run at high speed and high ambient temperatures with minimum temperature rises. This provides wide operating margin and contributes to exceptional reliability.

Thermal-related terms and symbols are illustrated as follows:



Thermal Terms and Symbols

Typical IsoLoop thermal specifications for NVE's most popular package types are summarized in the following table (specifications may vary slightly between models, so refer to datasheets for exact parameters):

Symbol	Package	Typ.	Max.	Units
θ_{JA}	3 mm MSOP-8	80		°C/W
	0.15" SOIC-8	60		
	0.15" SOIC-16	60		
ψ_{JT}	3 mm MSOP-8	40		°C/W
	0.15" SOIC-8	10		
	0.15" SOIC-16	10		
P_D	0.3" SOIC-16	20		mW
	3 mm MSOP-8		500	
	0.15" SOIC-8		675	
	0.15" SOIC-16		700	
	0.3" SOIC-16		800	

Thermal Specifications for Popular IsoLoop Packages (soldered to double-sided board; free air)

The junction-ambient thermal resistances for SOIC-8, narrow-body SOIC-16, and wide-body SOIC-16 packages are similar. This is because higher case-to-ambient thermal resistance in the smaller packages is offset by lower junction-case thermal resistances since they are thinner and have relatively large leadframe areas. This convenient coincidence allows one derating curve for three package types (MSOP packages have higher junction-ambient thermal resistances).

For more information, download this bulletin:
[More Info \(.pdf, Application Bulletin No. 24\) >](#)