

YOUR POWER SOLUTIONS PROVIDER



# SENSITRON SPACE SOLUTIONS

Sensitron has been a leading provider of space level solutions for over 20 years. Our products have been used on dozens of space missions, with zero reported flight failures. Our scalable products include radiation tolerant products and discrete solutions per MIL-PRF-19500. Our COTS devices are available with space level screening in our new manufacturing cleanrooms that are certified to Class H and K. Radiation testing available.



#### **Space Level Diode Arrays, SDA Series**

- JANS screening
- Hermetically sealed
- JANS Group A,B,C
- Radiation testing available
- TRL-9



#### DC Load Switch, STF030J0041LAT-1

- 40V, 30A, 12.6mOhm in-out resistance, fully derated
- 5V Bias, Logic 0V-3.3V enable pin
- High side FET configuration w/ "slow" rise and fall times (35uS rise, 2uS fall)
- 100mV/A current sense
- Integrated freewheeling diode
- Non-Hermetic baseless chip on board packaging
- Low FET switch thermal impedance (<1°C/W J-C)</li>
- 30kRad Total Ionizing Dose, 43MeV-cm2/mg SEB/SEL
- MIL-PRF-38534 Class H & K Screening Available
- TRL-4



#### GaN FET Plus Driver, SPF030N0101SE

- 100V, 30A, 1MHz, 7.5mOhm, fully derated
- Hermetically sealed or Non-Hermetic variant
- TO-267 package footprint
- Top side cooling to GaN device (<2°C/W J-C)</li>
- LEO Satellite Applications
- 30kRad Total Dose, 43MeV-cm2/mg SEB/SEL
- Temperature range -55°C to 125°C
- Max Weight 0.5oz
- Low Side Switch / High Side (w/external isolator)
- TRL-4



### GaN Half Bridge, STG030N010P1A-1

- 50V version 100kRad(Si), 100V version 30kRad(Si)
- 50V @ 50A, 100V @ 30A
- 50V: with bootstrap configuration, 100V: floating high side
- 1MHz-1.5MHz switching capability
- 50V: top side GaN + driver top cooling, 100V: GaN top side cooling and driver conduction cooling
- Hermetic and Non-Hermetic packaging options
- MIL-PRF-38534 Class K Screening Available
- TRL-3



### Solar Array Bypass Diodes, SDO Series

- Thin profile bare die
- Low forward voltage drop, low reverse leakage current
- Silver metal compatible with weld process
- Triangular shape for integration with solar cells
- Radiation tolerant
- TRL-4



### Solar Array Blocking Diodes, 1NXXXXFSL

- -190C to +175C operating temperature range
- Rugged hermetic package
- Low forward voltage drop, low reverse leakage current
- Compatible with weld attachment
- Radiation tolerant
- TRL-4

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# **SENSITRON SPACE SOLUTIONS**

## Sensitron: The Supplier You Can Count On Today and Tomorrow

The supply base for MIL-PRF-19500 QML diodes has changed rapidly over the last decade. Acquisitions and facility closures have resulted in numerous supply disruptions, requalifications and sole source situations. In this environment, Hi-Rel users need suppliers they can count on for quality products now and into the future.

#### Consider the following:

- Sensitron has supplied diodes to the military, aerospace and space markets since its inception in 1969. Our QML diodes are manufactured in the same facility today as they have been for over 50 years.
- Sensitron has expanded its QML offerings to include Rectifiers, Zener Diodes, Transient Voltage Suppressors, and Small Signal/Switching Diodes and we continue to expand our offering.
- Sensitron has made major investments in equipment and facilities to increase capacity and continuously improve product quality.

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1N Part Numbers			SMT Type	Slash Sheet	Qual Level	Description			
3595-1/A		US	241	JANS	Vf Controlled Diode				
3611	3612	3613	None	228	JANTX	1 Amp General Purpose Rectifier			
3890/R	to	3893/R	None	304	JANTXV	20 Amp Fast Recovery Rectifier DO-4			
4099-1	to	4120-1	UR-1	435	JANS	500mW Zener Diode			
4245	4246	4247	None	286	JANTXV	1 Amp General Purpose Rectifier			
4461	4467	to	US	406	JANS	1.5W Zener Diode			
4942	4944	4946	None	359	JANTXV	1 Amp Fast Recovery Rectifier			
4958	to	4989	US	356	JANS	5W Zener Diode			
5186	5187	5188	None	424	JANTXV	3 Amp Fast Recovery Rectifier			
5415	5416	5417	US	411	JANS	3 Amp Fast Recovery Rectifier			
5550	5551	5552	US	420	JANS	3 Amp General Purpose Rectifier			
5555	to	5558	None	500	JANTXV	1500W Unipolar TVS DO-13			
5614	5616	5618	US	427	JANS	1 Amp General Purpose Rectifier			
5615	5617	5619	US	429	JANS	1 Amp Fast Recovery Rectifier			
5629A	to	5665A	None	500	JANTXV	1500W Unipolar TVS DO-13			
5802	5804	5806	US	477	JANS	1 Amp Ultrafast Rectifier			
5807	5809	5811	US	477	JANS	3 Amp Ultrafast Rectifier			
5812/R	5814/R	5816/R	None	478	JANS	20 Amp Ultrafast Rectifier DO-4			
6036A	to	6072A	None	507	JANTXV	1500W Bi-directional TVS DO-13			
6105/A	to	6137/A	US	516	JANS	500W Bi-directional TVS			
6304/R	to	6306/R	None	550	JANTXV	70 Amp Ultrafast Rectifier DO-5			
6325	to	6351	US	533	JANS	500mW Zener Diode			
6620	6621	6622	U or US	585	JANS	1 Amp Ultrafast Rectifier			
6626	6627	6628	U or US	590	JANS	2 Amp Ultrafast Rectifier			
6638	6642	6643	U & US	578	JANS	Small Signal Switching Diode			
6639	6640	6641	US	609	JANS	Small Signal Switching Diode			
M19500/	469-01	to	None	469	JANTXV	10 Amp Single Phase Bridge Rectifier			
M19500/	483-01	to	None	483	JANTXV	25 Amp Three Phase Bridge Rectifier			

## JANS Qualified Diodes TRL-9



1N F	Part Nur	nber	Slash Sheet	Prefix, Qualified to	Description
3595-1			241	JANHCD/JANKCD	Vf Controlled Diode
757A	to	759A	127	JANHCD/JANKCD	500 mW Zener Diode
914			116	JANHCC/JANKCC JANHCD/JANKCD	Small Signal Switching Diode
962B	to	992B	117	JANHCD/JANKCD	500 mW Zener Diode
3070			169	JANHCC/JANKCC	Small Signal Switching Diode
4099	to	4135	435	JANHCD/JANKCD	500mW Zener Diode
4148			116	JANHCC/JANKCC JANHCD/JANKCD	Small Signal Switching Diode
4460	to	4496	406	JANHCA/JANKCA	1.5W Zener Diode
4954	to	4996	356	JANHCD/JANKCD	5W Zener Diode
5526B	to	5546B	437	JANHCD/JANKCD	Low Noise Voltage Regulator
5802	5804	5806	477	JANHCH/JANKCH JANHCF/JANKCF	150 Volt Ultrafast Rectifier
5807	5809	5811	477	JANHCH/JANKCH JANHCF/JANKCF	150 Volt Ultrafast Rectifier
6325	to	6351	533	JANHCB/JANKCB	500 mW Zener Diode
6638	6642	6643	578	JANHCD/JANKCD JANHCE/JANKCE	Small Signal Switching Diode

# JANKC Qualified Die TRL-9

