

DESCRIPTION

These small efficient high-speed switching Schottky rectifiers are electrically equivalent to industry standard part number THD6916 and can also replace the larger BAS40. Because of their small physical size and weight in a surface mount SOD-323 package, this product is ideal for use in miniaturized electronic equipment such as hand-held instruments, implantable medical devices, PDAs, computers, computer peripherals, cell phones, etc. These devices are also available in dual configurations (common anode, common cathode, or series/doubler) in SOT-323 packages as well as in chip form.

IMPORTANT: For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

APPEARANCE



SOD-323

FEATURES

- Schottky Barrier Rectifier with Guard Ring Protection
- Low Forward Voltage
- Low Leakage Current
- Low Capacitance
- Small SOD-323 Package
- UL 94V-0 Flammability Classification

MAXIMUM RATINGS

- Junction Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Working Peak Reverse Voltage (V_{RWM}): 40 V
- Repetitive Peak Reverse Voltage (V_{RRM}): 40 V
- Thermal Resistance: 635°C/W junction to ambient on FR4 PCB
- Forward Power Dissipation: 200 mW on FR4 PCB

APPLICATIONS / BENEFITS

- High-Speed Switching Faster Than conventional P-N Junction Signal Diodes
- Small Surface Mount Size & Footprint
- Low Profile Height in Miniaturized Instruments
- Dual Configurations are also available as common anode or cathode or series/doubler in SOT-323
- Chips for Hybrids Available as CH6916/15

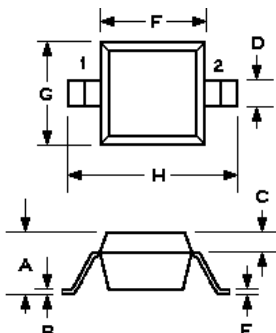
MECHANICAL AND PACKAGING

- Weight: 0.012 grams (approximate)
- Marking: Device marking code and polarity band
- Tape & Reel per EIA Standard 481
- 7 inch reel 3,000 units
- Soldering Temperatures: 260°C for 10 sec max

ELECTRICAL CHARACTERISTICS

PART NUMBER	DEVICE MARKING	MINIMUM BREAKDOWN VOLTAGE V_{BR} @ 10 μ A	MAXIMUM FORWARD VOLTAGE					MAXIMUM REVERSE CURRENT			MAXIMUM CAPACITANCE C f = 1 MHz @ 0 Volts
			@ I_F 1.0 μ A	@ I_F 100 μ A	@ I_F 1.0 mA	@ I_F 10 mA	@ I_F 50 mA	@ V_R 0.1 V	@ V_R 1.00 V	@ V_R 20 V	
			Volts	Volts	Volts	Volts	Volts	nA	nA	nA	
MM3S6916	295	40	0.100	0.27	0.34	0.47	0.625	50	100	200	5.0

PACKAGE OUTLINE



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	---	.043	---	---	1.092	---
B	---	.004	---	---	.102	---
C	---	.006	---	---	.152	---
D	.010	.013	.016	.254	.330	.406
E	.003	.0045	.006	.076	.114	.152
F	.063	.069	.075	1.600	1.752	1.905
G	.045	.051	.057	1.143	1.295	1.448
H	.094	.100	.106	2.388	2.540	2.692