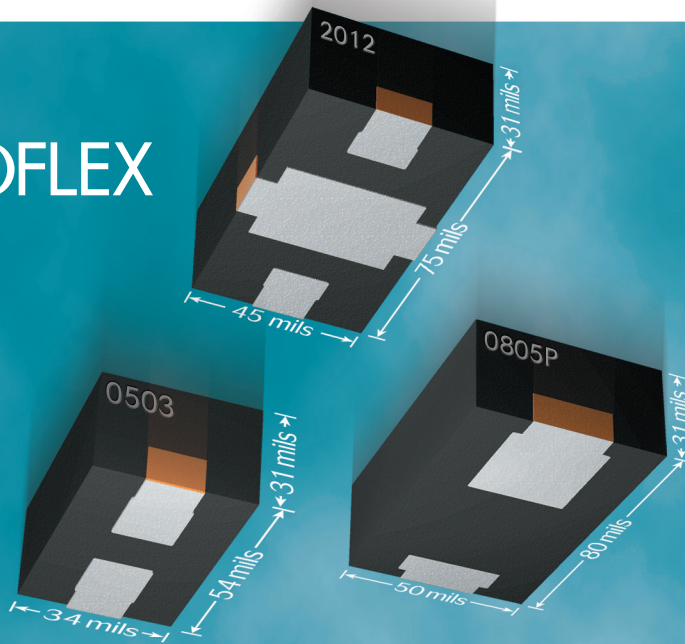


# Low cost surface mount control diodes drop in perfectly



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**Medium and high power PIN diode SPST switch elements** are excellent for test instrumentation, software defined radio, and wireless infrastructures such as TD-SCDMA, WiMAX, WiBro, WLAN, and MIMO OFDM.

**High dynamic range shunt attenuator diodes** are ideal for test instrumentation and wireless infrastructures such as TD-SCDMA, WiMAX, WiBro, WLAN, point-to-point radio, and FWA.

**GaAs and silicon Schottky mixer/detector diodes** are perfect for test instrumentation, sensors, and wireless infrastructures such as point-to-point radio and FWA.

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## Medium and High Power PIN Diode SPST Switch Elements

Part Number	Rated Power Max	Freq Max	Insertion Loss Typical		Isolation Typical		Package*
			1 GHz	2.7 GHz	1 GHz	2.7 GHz	
MSWSE-050-10	50	1	0.15	—	10	—	0805P (SE)
MSWSE-044-10	40	2	0.20	0.25	15	8	0805P (SE)
MSWSHB-020-30	40	10	0.10	0.20	38	40	2012 (SH)
MSWSS-020-40	20	6	0.15	0.30	63	50	2012 (SS)
MEST <sup>2</sup> G-020-15	20	6	0.20	0.20	25	18	2012 (SE)
MEST <sup>2</sup> G-010-20	10	10	0.40	0.40	31	23	2012 (SE)
MSWSE-010-15	10	2	0.25	0.25	18	9	0503 (SE)
MSWSE-005-15	5	6	0.30	0.60	24	17	0503 (SE)

\*Configurations: series (SE), shunt (SH), and series shunt (SS)

## High Dynamic Range Shunt Attenuator Diodes

Part Number	Polarity	Insertion Loss dB Typ	Attenuation Value, dB typ.					Package
			10 uA	100 uA	1 mA	10 mA	100 mA	
MSAT-N25	NIP	0.3	0.4	0.8	5	17	27	2012
MSAT-P25	PIN	0.3	0.4	0.8	5	17	27	2012

- Low distortion vs. forward current, harmonic distortion at 85 dBc typical.
- Broadband performance beyond 10 GHz.

## GaAs and Silicon Schottky Mixer/Detector Diodes

Part Number	Type	Freq	Vbr Min V	Ct Typ pF	Vf		Rs Max Ω	Package
					Min mV	Max mV		
SMGS11	Detector	>26.5	5	0.10	620	760	7	0503
SMGS21	Mixer	>26.5	—	0.15	620	760	7	0503
SMS201	Detector	>26.5	1	0.08	60	120	80	0503
SMS202	Detector	<18	1	0.18	60	120	80	0503

- GaAs Schottky diode SMGS11 is ideal for temperature compensated detector.
- GaAs Schottky diode SMGS21 is an anti-parallel pair, ideal for a doubler and harmonic mixer.
- Silicon zero bias Schottky diode SMS201 and SMS202 are simplest for a broadband detector design, with good sensitivity, -54 dBm typical and no DC bias required.

