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PACKARD

Non-Surface Mount PIN and Schottky Diodes Selection Guide

General Purpose Glass Schottky Diodes (Typical Specifications @ 25°C Case Temperature)

Part Number	Applications	V_{br} (V)	V_f @ 1 mA (mV)	C_t (pF)	Ir (nA)
5082-2800 (1N5711)	High level detecting, mixing, switching, gating, sampling, wave shaping	70	410	2.0	200 @ 50 V
5082-2810 (1N5712)	High level detecting, mixing, switching, gating, sampling, wave shaping	20	410 (550)	1.2	100 (150) @ 15 V
5082-2811	High level detecting, mixing, switching, gating, sampling, wave shaping	15	410	1.2	100 @ 8 V
5082-2835	UHF mixing	8	340	1.0	100 @ 1 V

General Purpose Glass PIN Diodes (Typical Specifications @ 25°C Case Temperature)

Part Number	Applications	V_{br} (V)	R_s (Ohms)	C_t (pF)	Lifetime (ns)	Reverse Recovery Time (ns)
5082-3080 (1N5767)	Attenuating	100	2.5 @ 100 mA	0.4	1,300	—
5082-3081	Attenuating	100	3.5 @ 100 mA	0.4	2,400	—
5082-3188	Switching	35	0.6 @ 10 mA	1.0	100	12
5082-3077	General Purpose, Switching & Attenuating	200	1.5 @ 100 mA	0.3	100	100

Beam Lead Silicon Schottky Diodes (Typical Specifications @ 25°C Case Temperature)

Part Number	Applications	V_{br} (V)	R_s @ I_f = 5 mA (Ohms)	V_f @ 1 mA (mV)	Delta V_f (mV)	C_t (pF)	Delta C_t (pF)
HSCH-5312 (single)	Mixing, Detecting	4	11	500	—	0.15	—
HSCH-5332 (single)	Mixing, Detecting	4	11	375	—	0.15	—
HSCH-5512 (series pair)	Mixing, Detecting	4	11	500	10	0.15	0.03
HSCH-5531 (series pair)	Mixing, Detecting	4	15	375	10	0.10	0.02

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Beam Lead GaAs Schottky Barrier Diodes

Part Number	Applications	C_{total} (pF)	R_s (Ohms)	B_v @ -10 µA (V)	V_F @ 1 mA (mV)	Type
HSCH-9101	Microwave/Millimeter-wave Mixer	0.040	6	> 4.5	700	single
HSCH-9201	Microwave/Mmillimeter-wave Balanced Mixer	0.040	6	> 4.5	700	series pair
HSCH-9251	Microwave/Millimeter-wave Harmonic Mixer	0.040	6	> 4.5	700	antiparallel pair
HSCH-9301	Microwave/Millimeter-wave Double-Balanced Mixer	0.075	6	> 4.5	700	ring quad
HSCH-9351	Microwave/Millimeter-wave Biased Double-Balanced Mixer	0.075	6	> 4.5	700	bridge quad

Zero-Bias Beam Lead GaAs Detector Diodes

Part Number	Applications	C_j (pF)	R_v Max. (kΩ)	Γ (mV/µW)	Functional through (GHz)
HSCH-9161	Microwave/Millimeter-wave Detector	0.035	7.5	0.5	110

Beam Lead PIN Diodes (Typical Specifications @ 25°C Case Temperature)

Part Number	Applications	V_{br} (V)	R_s (Ohms)	C_t (pF)	Lifetime (ns)	Reverse Recovery Time (ns)
HPND-4005	Attenuating, Switching, Phase Shifting, Limiting, Modulating	120	4.7 @ 20 mA	0.017	100	—
HPND-4038	Phase Shifting, Switching	60	1.5 @ 10 mA	0.055	45	2.4

Beamless GaAs Schottky Microwave/Millimeter-wave Diodes

Part Number	Applications	C_j (pF)	R_s (Ω)	B_v @ -10 µA (V)	V_F @ 1 mA (mV)	Type
NEW HSCH-9401	Detector, single-ended mixer	0.015	<8.5	>6	700	Single

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