

PIN DIODES

These passivated mesa PIN diodes have a thin I layer. This series of diodes is available as chips and in hermetic ceramic packages. They operate as power dependent variable resistances and provide passive receiver protection (low noise amplifiers, mixers, and detectors)

CHIP DIODES			CHIP AND PACKAGED DIODES						
CHARACTERISTICS at 25°C		GOLD DIAM. \emptyset	BREAKDOWN VOLTAGE V_{BR}		JUNCTION CAPACITANCE C_{j0}	JUNCTION CAPACITANCE $C_{j\theta}$		SERIES RESISTANCE R_{SF}	MINORITY CARRIER LIFETIME τ_i
TEST CONDITIONS			$I_R = 10 \mu A$		$V_R = 0 V$ $f = 1 MHz$	$V_R = 6 V$ $f = 1 MHz$		$I_F = 10 mA$ $f = 120 MHz$	$I_F = 10 mA$ $I_R = 6 mA$
OLD TYPE N°	TYPE	μm	V		pF	pF		Ω	ns
	case C2A	typ	min	max	typ	min	max	max	typ
EH 625	EH 60033	25	25	50	0.14	0.08	0.12	2.1	20
	EH 60034	30	25	50	0.20	0.12	0.17	1.6	25
EH 624	EH 60035	35	25	50	0.28	0.17	0.23	1.1	25
EH 602	EH 60036	55	25	50	0.45	0.23	0.40	1.0	30
	EH 60037	65	25	50	0.70	0.40	0.60	0.7	40
	EH 60052	30	50	70	0.10	0.06	0.08	1.8	30
	EH 60053	35	50	70	0.14	0.08	0.12	1.4	30
	EH 60054	40	50	70	0.20	0.12	0.17	1.1	35
	EH 60055	50	50	70	0.28	0.17	0.23	1.0	40
	EH 60056	65	50	70	0.45	0.23	0.40	0.9	50
	EH 60057	80	50	70	0.70	0.40	0.60	0.8	60
EH 604	EH 60071	35	70	90	0.08	0.04	0.06	2.0	40
	EH 60072	40	70	90	0.10	0.06	0.08	1.8	40
	EH 60073	45	70	90	0.14	0.08	0.12	1.6	50
	EH 60074	50	70	90	0.20	0.12	0.17	1.4	60
	EH 60075	60	70	90	0.28	0.17	0.23	1.1	70
	EH 60076	80	70	90	0.45	0.23	0.40	1.0	80
	EH 60077	100	70	90	0.70	0.40	0.60	0.9	90
EH 605	EH 60101	45	90	120	0.08	0.04	0.06	2.1	60
	EH 60102	50	90	120	0.10	0.06	0.08	1.9	70
	EH 60103	60	90	120	0.14	0.08	0.12	1.7	80
	EH 60104	70	90	120	0.20	0.12	0.17	1.5	100
	EH 60105	90	90	120	0.28	0.17	0.23	1.3	120
	EH 60106	110	90	120	0.45	0.23	0.40	1.2	180
	EH 60107	130	90	120	0.70	0.40	0.60	1.1	280

PIN DIODES

PACKAGED DIODES				NOMINAL MICROWAVE CHARACTERISTICS					
CHARACTERISTICS at 25°C		STANDARD PACKAGE ⁽¹⁾		THERMAL RESISTANCE	THRESHOLD	LEAKAGE POWER	INSERTION LOSS	PEAK POWER	CW POWER
TEST CONDITIONS				R_{th}	P_L	P_{out}	L	P_{in}	
OLD TYPE N°	TYPE	$C_b = 0.18 \text{ pF}^{(2)}$	$C_b = 0.12 \text{ pF}^{(2)}$	$P_{diss} = 1 \text{ W}$ case F 27d	f = 2.7 GHz 1 dB Limiting	f = 2.7 GHz	f = 2.7 GHz $P_{in} = -10 \text{ dBm}$	1 μs Pulse 1% DC	P_{in}
				°C/W	dBm	dBm	dB	dBm	W
				max	typ	typ	typ	max	max
DH 625	DH 60033	F 27 d	M 208	80	+10	+20	0.1	+50	2.0
	DH 60034	F 27 d	M 208	80	+10	+20	0.1	+50	2.0
DH 624	DH 60035	F 27 d	M 208	70	+10	+21	0.1	+52	2.5
DH 602	DH 60036	F 27 d	M 208	60	+10	+22	0.2	+53	3.0
	DH 60037	F 27 d	M 208	50	+10	+23	0.2	+56	4.0
	DH 60052	F 27 d	M 208	80	+15	+24	0.1	+52	2.5
	DH 60053	F 27 d	M 208	70	+15	+24	0.1	+52	2.5
	DH 60054	F 27 d	M 208	60	+15	+25	0.1	+53	3.0
	DH 60055	F 27 d	M 208	50	+15	+26	0.1	+54	3.5
	DH 60056	F 27 d	M 208	45	+15	+27	0.2	+57	4.0
	DH 60057	F 27 d	M 208	45	+15	+28	0.2	+58	5.0
DH 604	DH 60071	F 27 d	M 208	70	+18	+27	0.1	+53	2.5
	DH 60072	F 27 d	M 208	70	+18	+27	0.1	+54	3.0
	DH 60073	F 27 d	M 208	60	+18	+29	0.1	+54	3.0
	DH 60074	F 27 d	M 208	50	+18	+30	0.2	+55	4.0
	DH 60075	F 27 d	M 208	45	+18	+31	0.2	+56	4.5
	DH 60076	F 27 d	M 208	40	+18	+32	0.2	+58	5.0
	DH 60077	F 27 d	M 208	40	+18	+33	0.2	+59	6.0
DH 605	DH 60101	F 27 d	M 208	60	+20	+31	0.2	+56	3.0
	DH 60102	F 27 d	M 208	60	+20	+31	0.2	+56	3.5
	DH 60103	F 27 d	M 208	55	+20	+32	0.2	+57	4.0
	DH 60104	F 27 d	M 208	50	+20	+33	0.2	+59	5.0
	DH 60105	F 27 d	M 208	40	+20	+34	0.3	+60	5.5
	DH 60106	F 27 d	M 208	35	+20	+35	0.3	+61	6.0
	DH 60107	F 27 d	M 208	35	+20	+36	0.3	+63	7.0

⁽¹⁾ Custom cases on request

⁽²⁾ $C_T = C_j + C_b$

Temperature range :

Operating Junction (T_j) : -55°C to +175°C

Storage : -65°C to +200°C