

## Silicon Limiter PIN diodes

### Electrical Characteristics

CHIP DIODES			PACKAGED DIODES						
Characteristics @ 25°C		Gold Ø	Breakdown voltage Vbr		Junction capacitance Cj2	Junction capacitance Cj-6 (1)		Series resistance Rsf	Minority Carrier lifetime $\tau_l$
Test conditions			I <sub>r</sub> = 10 µA		V <sub>r</sub> = 0 V f = 1MHz	V <sub>r</sub> = 6V f = 1MHz		I <sub>f</sub> = 10mA f = 120MHz	I <sub>f</sub> = 10mA I <sub>r</sub> = 6mA
Type	Case	µm typ.	V		pF typ.	pF		Ω max	ns typ.
			min.	max		min.	max		
EH60033	C2a	25	25	50	0.14	0.08	0.12	1.8	20
EH60034		30			0.20	0.12	0.17	1.5	20
EH60035		35			0.28	0.17	0.23	1.0	25
EH60036		55			0.45	0.23	0.40	0.9	30
EH60037		65			0.70	0.40	0.60	0.7	40
EH60052	C2a	30	50	70	0.10	0.06	0.08	1.8	30
EH60053		35			0.14	0.08	0.12	1.4	30
EH60054		40			0.20	0.12	0.17	1.1	35
EH60055		50			0.28	0.17	0.23	1.0	40
EH60056		65			0.45	0.23	0.40	0.9	50
EH60057	80	0.70	0.40	0.60	0.8	60			
EH60072	C2a	40	70	90	0.10	0.06	0.08	1.7	50
EH60074		50			0.20	0.12	0.17	1.4	60
EH60076		80			0.45	0.23	0.40	0.9	100
EH60102	C2a	50	90	120	0.10	0.06	0.08	1.7	150
EH60104		70			0.20	0.12	0.17	1.2	250
EH60106		110			0.45	0.23	0.40	0.8	400

(1) Other capacitance measurements available on request.

### Electrical Characteristics

PACKAGED DIODES			MICROWAVE CHARACTERISTICS					
Characteristics at 25°C			Thermal resistance R <sub>th</sub>	Threshold P <sub>I</sub>	Leakage power P <sub>OUT</sub>	Insertion loss	Peak power P <sub>in</sub>	CW power P <sub>in</sub>
Test conditions			P <sub>diss</sub> = 1W case F 27d	F = 2.7GHz 1dB Limiting	f = 2.7GHz	f = 2.7GHz P <sub>in</sub> = -10 dBm	Pulse = 1 µs DC = 1%	
Type	Standard case (2)		°C/W max	dBm typ.	dBm typ.	dB typ.	dBm max	W max
	C <sub>b</sub> = 0.18pF (3)	C <sub>b</sub> = 0.12pF (3)						
DH60033	F 27d	M208	80	10	20	0.1	50	2.0
DH60034			80	10	20	0.1	50	2.0
DH60035			70	10	21	0.1	52	2.5
DH60036			60	10	22	0.2	53	3.0
DH60037			50	10	23	0.2	56	4.0
DH60052	F 27d	M208	80	15	24	0.1	52	2.5
DH60053			70	15	24	0.1	52	2.5
DH60054			60	15	25	0.1	53	3.0
DH60055			50	15	26	0.1	54	3.5
DH60056			45	15	27	0.2	57	4.0
DH60057	45	15	28	0.2	58	5.0		
DH60072	F 27d	M208	70	18	27	0.1	54	3.0
DH60074			50	18	30	0.2	55	4.0
DH60076			40	18	32	0.2	58	5.0
DH60102	F 27d	M208	60	20	31	0.2	56	3.5
DH60104			50	20	33	0.2	59	5.0
DH60106			35	20	35	0.3	61	7.0

(2) Other capacitance measurements available on request.

(3) C<sub>t</sub> = C<sub>j</sub> + C<sub>b</sub>