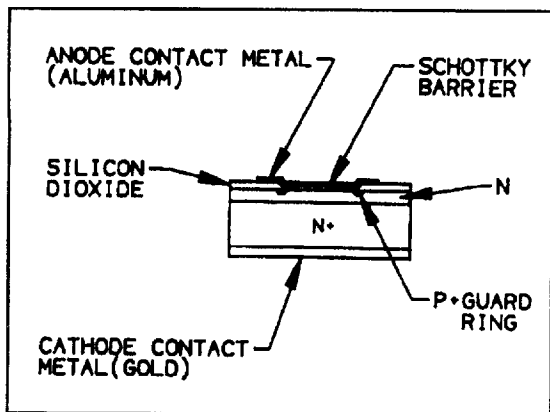


Schottky Diode Die

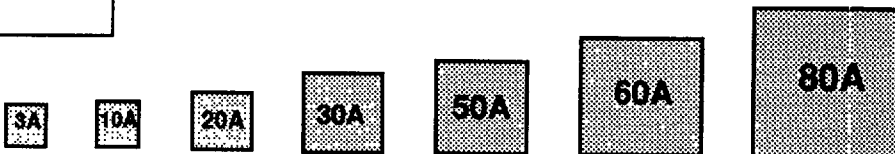
OSC0054 - OSC0210 Series



Thickness .010 ± .002 inch

Features

- Rugged guard ring construction for stress protection
- 175°C operating junction temperature capability
- Low reverse current to prevent thermal runaway
- Aluminum anode metalization for hybrid applications
- Reverse voltage ratings from 20 to 50V.
- Low forward voltage for maximum efficiency
- Gold metalization on cathode for hybrid eutectic mounting



Product Type ⁽¹⁾		OSC0054	OSC0096	OSC0125	OSC0135	OSC0165	OSC0175	OSC0210	Units
Physical Dimensions		54	96	125	135	165	175	210	mils sq
Maximum Ratings:									
Average Rectified Forward Current (Rated V _R) ⁽³⁾	I _O	3	10	20	30	50	60	80	Amps
Nonrepetitive Peak Surge Current ⁽³⁾ (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I _{FSM}	60	500	500	500	600	800	1000	Amps
Peak Repetitive Reverse Surge Current (2.0 μs, 1.0 kHz) ⁽²⁾	I _{RRM}	0.4	0.7	1.0	1.5	2.0	2.0	2.0	Amps
Working Peak Reverse Voltage ⁽¹⁾	V _{RWM}	20-50	20-50	20-50	20-50	20-50	20-50	20-50	Volts
Voltage Rate of Change (Rated V _R) ⁽²⁾	dv/dt	1000	1000	1000	1000	1000	1000	1000	V/μs
Peak Operating Junction Temperature (Forward Current Applied)	T _{J(pk)}	175	175	175	175	175	175	175	°C
Electrical Characteristics at 25°C:									
Max. Forward Voltage at (Rated I _O) ⁽²⁾	V _F	0.680	0.680	0.620	0.650	0.680	0.700	0.720	Volts
Max. Reverse Current (Rated DC Voltage)	I _R	1	1	1	1	1	2	4	mA
Capacitance ⁽²⁾ (V _R = 5V, 0.1MHz < f < 1.0MHz)	C _t	90	500	700	900	1300	1500	2200	pF

(1) Add suffix to base part number as follows to specify V_{RWM}: -20 = 20V; -30 = 30V; -40 = 40V and -50 = 50 V.

(2) These parameters are verified by wafer lot acceptance testing.

(3) These parameters are design parameters influenced by packaging and inter connection processes.

Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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