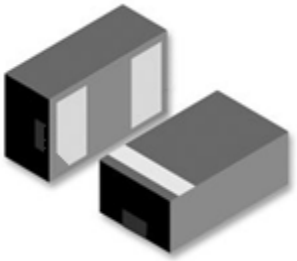
GOOD-ARK
SEMICONDUCTOR

GS3002EL

Schottky Barrier Diode

Features

- Low profile
- Low forward voltage
- Forward current: 0.2A
- Reverse Voltage 30V
- MSL: Lever 1



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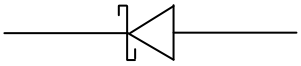


Schematic Diagram

Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Low voltage rectification
- High efficiency DC-to-DC conversion
- Low power consumption applications

Absolute Maximum Ratings

(T_A=25°C unless otherwise specified)

Parameter	Symbol	Condition	Min	Max	Unit
Continuous Reverse Voltage	V_{RRM}			30	V
Repetitive Peak Forward Current	I_{FRM}	$t_p \leq 1ms$, $\delta \leq 0.25$		2.5	A
Continuous Forward Current	I_F			0.2	A
Non-repetitive Peak Forward Current	I_{FSM}	t=8.3ms,square wave		3.0	A
Junction Temperature	T_j		-65	+150	°C
Operating Ambient Temperature	T_{amb} (1)		-65	+150	°C
Storage Temperature	T_{stg} (1)		-65	+150	°C

Notes:
1. For Schottky barrier diodes thermal run-away has to be considered, as in some applications the reverse power losses P_R are a significant part of the total power losses. Nomograms for determining the reverse power losses P_R and $I_{F(AV)}$ rating will be available on request.

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Condition	Typ	Max	Unit
Continuous forward voltage	V_F	I_F=0.1mA	95	190	mV
		I_F=1mA	160	240	mV
		I_F=10mA	240	300	mV
		I_F=100mA	360	420	mV
		I_F=200mA	410	480	mV
Continuous reverse current	I_R	V_R=10V	5	15	μA
		V_R=30V	25	100	μA
Diode capacitance	C_d	V_R=1V;f=1MHz	30		pF

Pulse test:tp≤300μs; δ≤0.02

Typical Characteristic Curves

Fig.1 Forward current as a function of forward Voltage; typical values

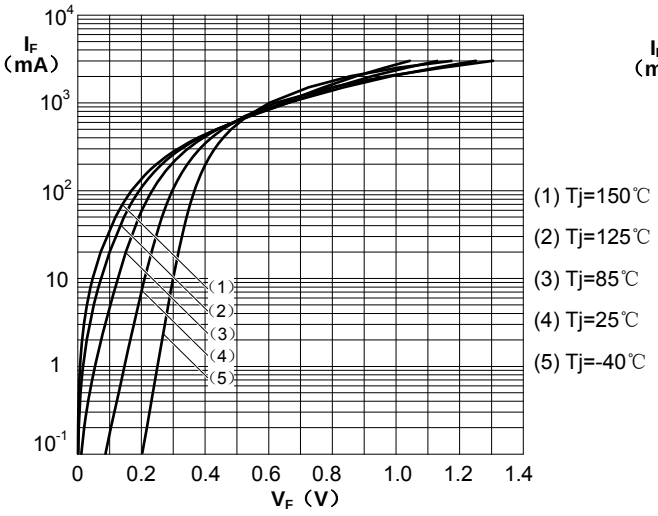


Fig.2 Reverse current as a function of reverse voltage; typical values

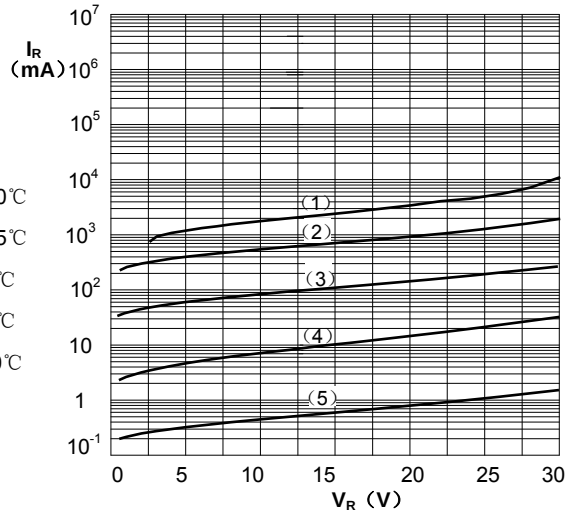
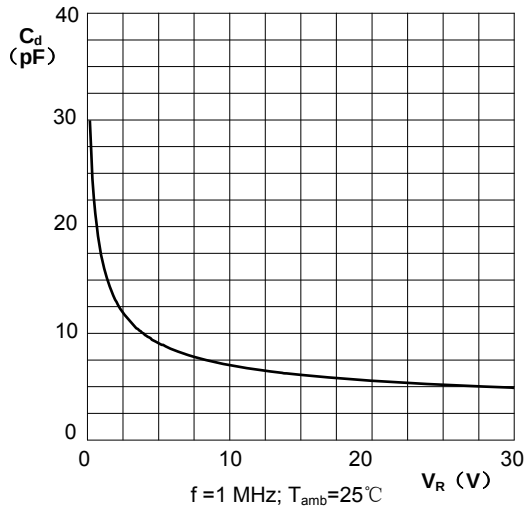
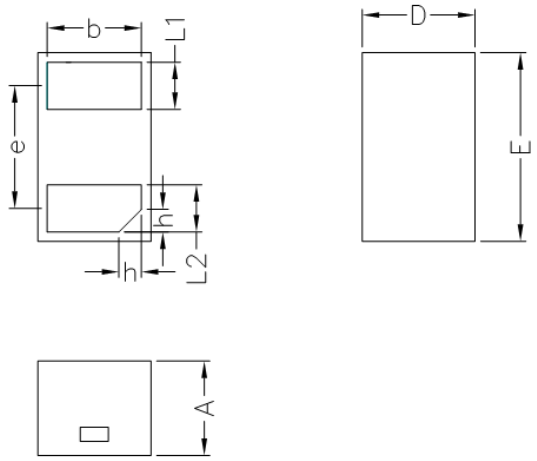


Fig.3 Diode capacitance as a function of reverse Voltage; typical values



Product Dimensions

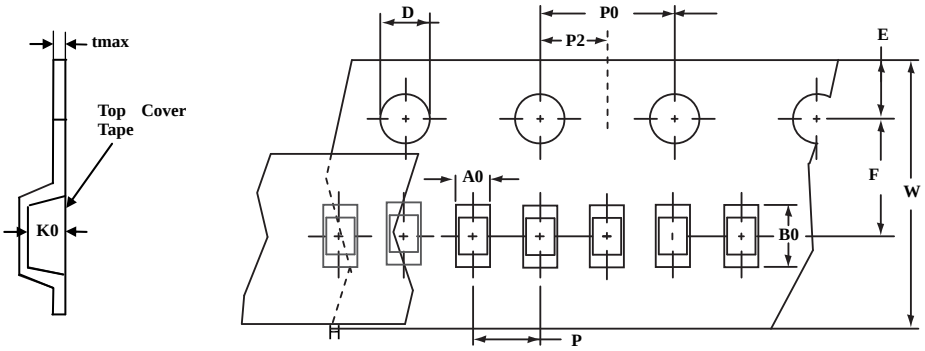
SOD-882



Unit: mm

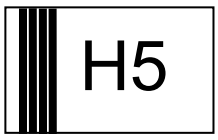
	MIN	NOM	MAX
D	0.55	0.60	0.65
E	0.95	1.00	1.05
L1	0.20	0.25	0.30
L2	0.20	0.25	0.30
b	0.45	0.50	0.55
e	0.65BSC		
A	0.45	0.50	0.55
h	0.07	0.12	0.17

Package Informations



A0	B0	K0	D	E	F	W	P0	P2	P	tmax
0.7±0.05	1.1± 0.05	0.42±0.05	1.55±0.05	1.75±0.1	3.5±0.05	8.0± 0.2	4.0± 0.1	2.0± 0.05	2.0±0.05	0.25

Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
GS3002EL	SOD-882	Tape & Reel	10000pcs/Reel	RoHS compliant