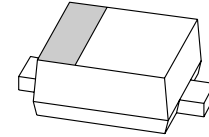


Low VF Schottky barrier rectifier

Features

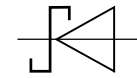
- Forward current: $I_F \leq 0.5\text{A}$
- Reverse voltage: $V_R \geq 40\text{V}$
- Very low forward voltage
- Ultra small and flat lead SMD plastic package



SOD-523
Marking: KV

Application

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch mode power supply
- Reverse polarity protection
- Low power consumption applications



Symbol

Electrical Characteristic $T_a=25^\circ\text{C}$

Parameter	Symbol	Spec. Limit			Unit
		Min.	Typ.	Max.	
Max. Repetitive Peak Reverse Voltage @0.5mA	V_{RRM}	40	50		V
Max. Average Forward Rectified Current	$I_{F(AV)}$			0.5	A
Forward Voltage Drop @ $I_F=0.5\text{A}$ @25°C	V_F		0.44	0.49	V
Max. Reverse Current at V_{RRM} @40V @25°C	I_R		50	150	μA
Operating Temperature Range	T_J	-55		+125	°C
Storage Temperature Range	T_{STG}	-55		+150	°C

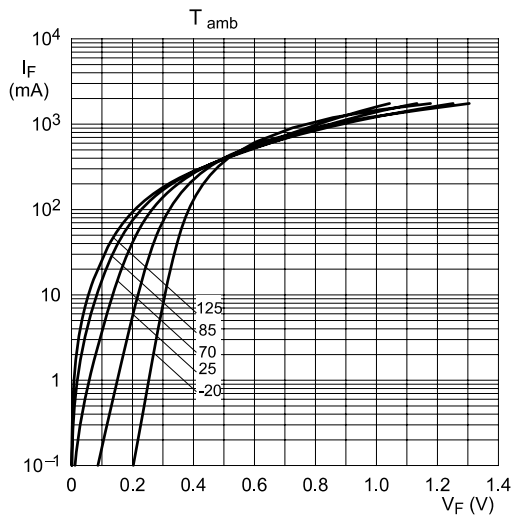


Fig 1. Forward current as a function of forward voltage; typical values

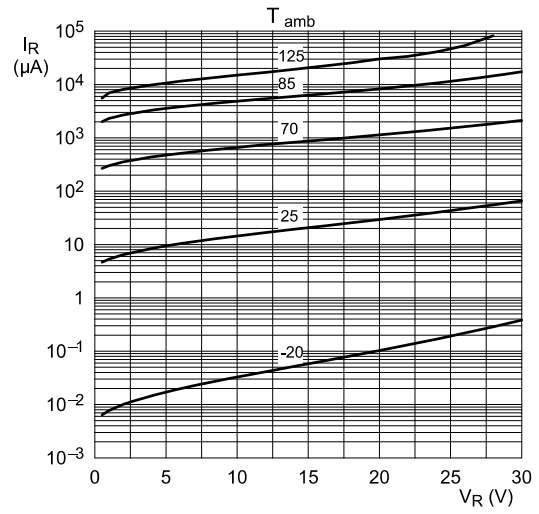
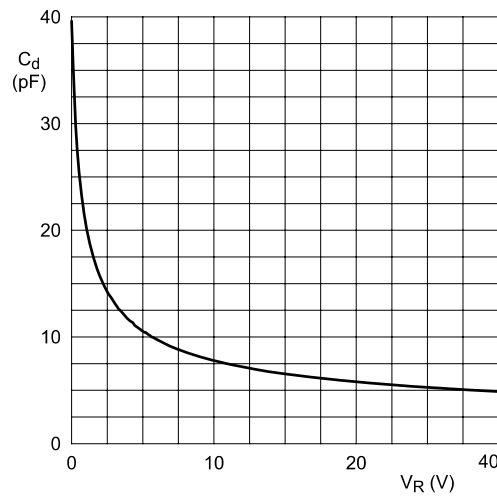


Fig 2. Reverse current as a function of reverse voltage; typical values

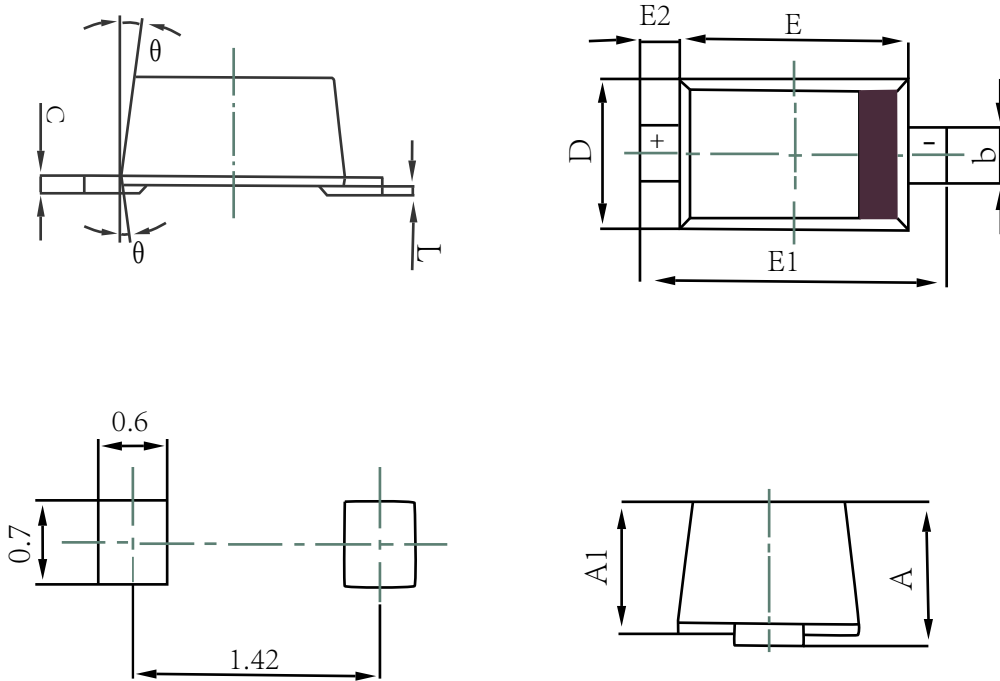


$f = 1 \text{ MHz}; T_{\text{amb}} = 25 \text{ }^{\circ}\text{C}$

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

Package Dimensions

SOD-523



Unit	A	A1	b	c	D	E	E1	E2	L	θ
Max.	0.77	0.70	0.35	0.15	0.85	1.30	1.70	0.20 REF.	0.07	7° REF.
Min.	0.51	0.50	0.25	0.08	0.75	1.10	1.50		0.01	