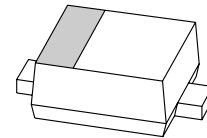


Low VF Schottky barrier rectifier

Features

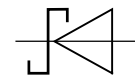
- Forward current: $I_F \leq 1 \text{ A}$
- Reverse voltage $V_R \geq 40 \text{ V}$
- Very low forward voltage
- Ultra small and flat lead SMD plastic package



SOD-523
Marking: KX

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	$I_{F(AV)}$			1	A
Forward Voltage Drop @ $I_F=1\text{A}$	@ 25°C	V_F	0.55	0.68	V
Max. Reverse Current at V_{RRM} @40V	@ 25°C	I_R	25	100	μA
Operating Temperature Range	T_J	-55		+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55		+150	$^\circ\text{C}$

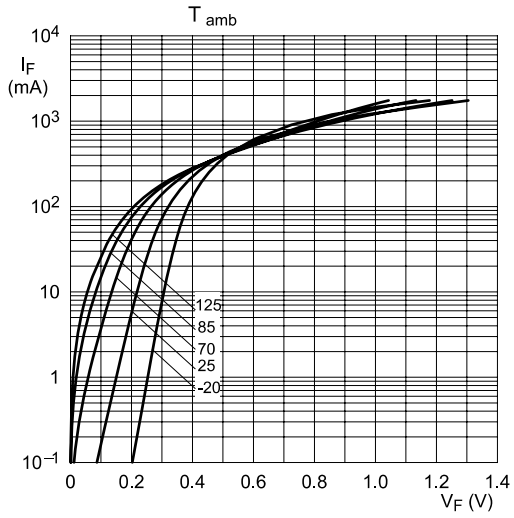


Fig 1. Forward current as a function of forward voltage; typical values

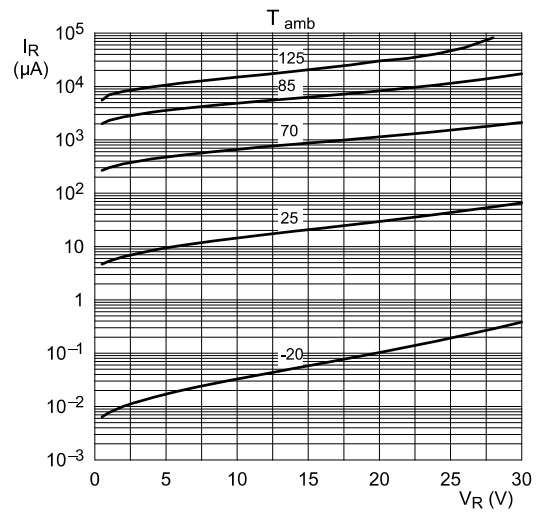
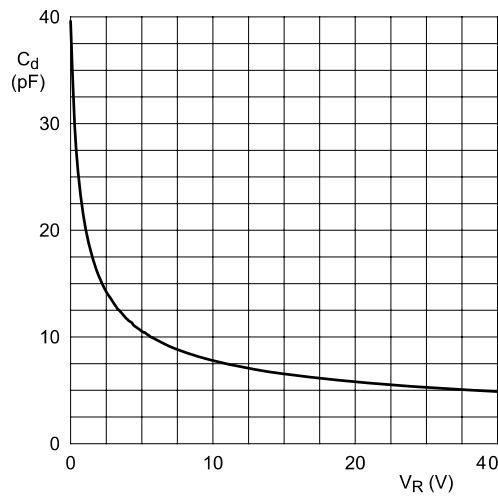
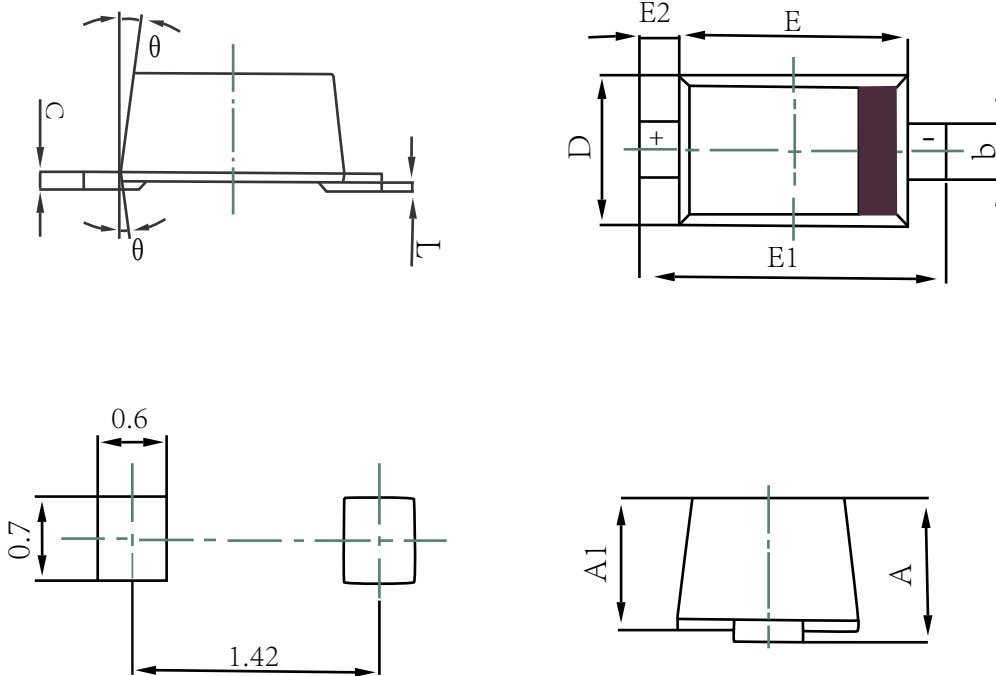


Fig 2. Reverse current as a function of reverse voltage; typical values



$f = 1 \text{ MHz}; T_{amb} = 25 \text{ C}$
Fig 3. Diode capacitance as a function of reverse voltage; typical values



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	0.07	7°
Min.	0.51	0.50	0.25	0.08	0.75	1.10	1.50	REF.	0.01	REF.