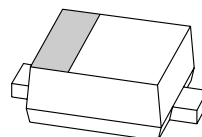


SCHOTTKY BARRIER DIODE

Reverse Voltage - 40V Forward Current - 0.5A

Features

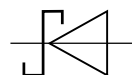
- Forward current: $I_F \leq 0.5\text{ A}$
- Reverse voltage: $V_R \geq 40\text{ V}$
- Very low forward voltage
- Ultra small and flat lead SMD plastic package



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

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	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55		+150	$^\circ\text{C}$

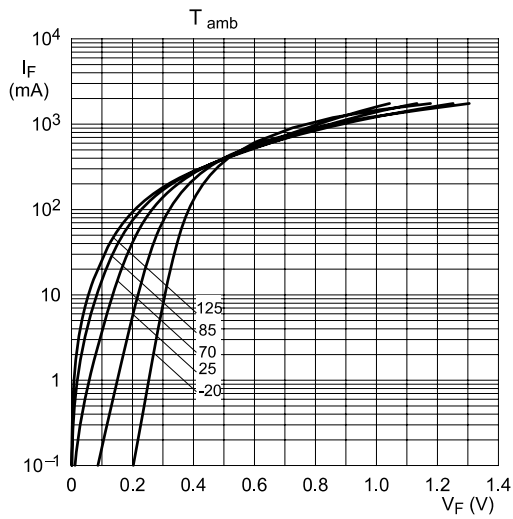


Fig 1. Forward current as a function of forward voltage; typical values

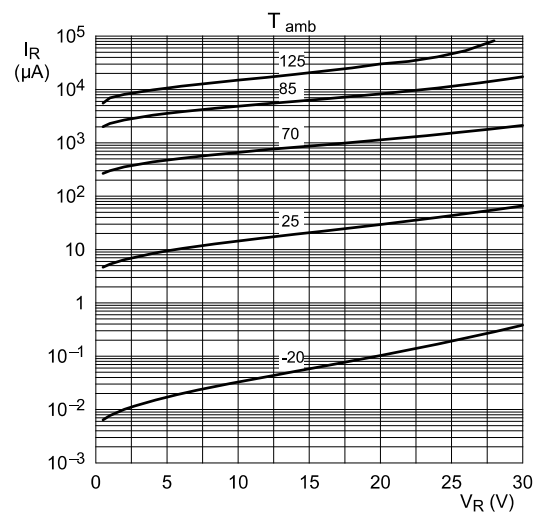
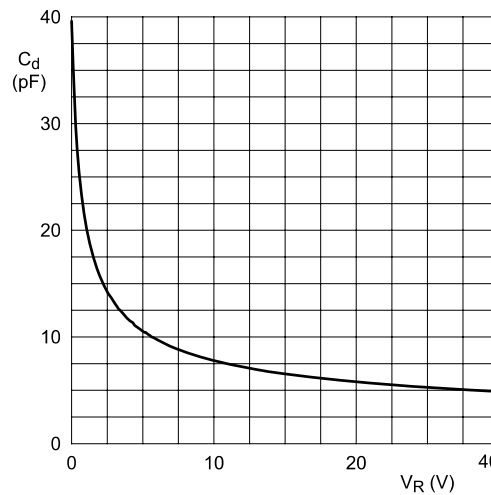


Fig 2. Reverse current as a function of reverse voltage; typical values



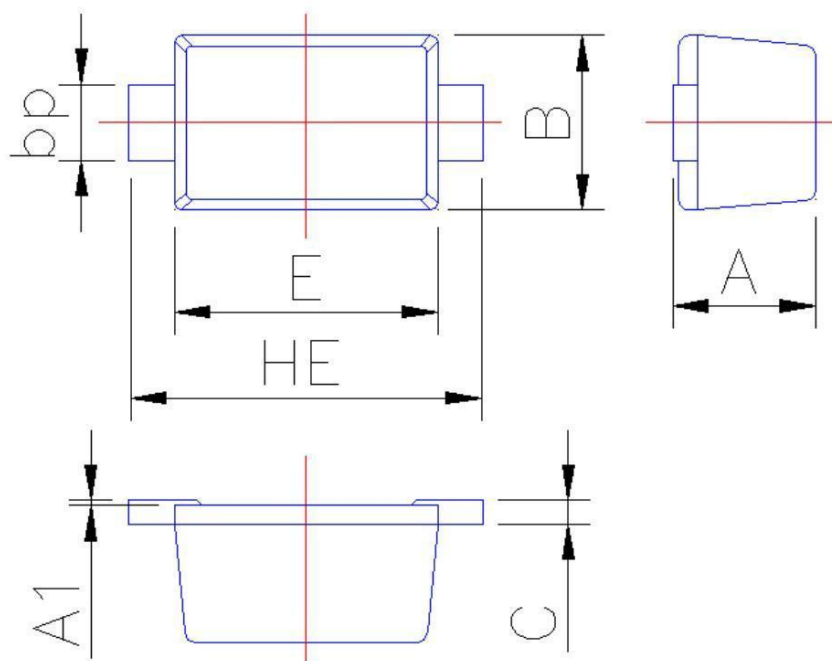
$f = 1 \text{ MHz}; T_{\text{amb}} = 25^\circ \text{C}$

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

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
A1	0	0.05
B	0.70	0.90
bp	0.25	0.40
C	0.09	0.15
E	1.15	1.25
HE	1.50	1.70