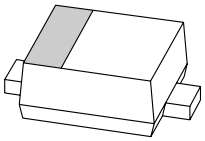
MSK4005

Low VF Schottky barrier rectifier

Features

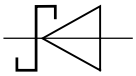
- Forward current: $I_F \leq 0.5$ A
- Reverse voltage: $V_R \geq 40$ V
- Very low forward voltage
- Ultra small and flat lead SMD plastic package



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 Ta=25 ℃

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=0.5A	@25 ℃	V_F		0.44	0.49	V
Max. Reverse Current at V_{RRM} @40V	@25 ℃	I_R		50	150	μA
Operating Temperature Range		T_J	-55		+125	℃
Storage Temperature Range		T_{STG}	-55		+150	℃

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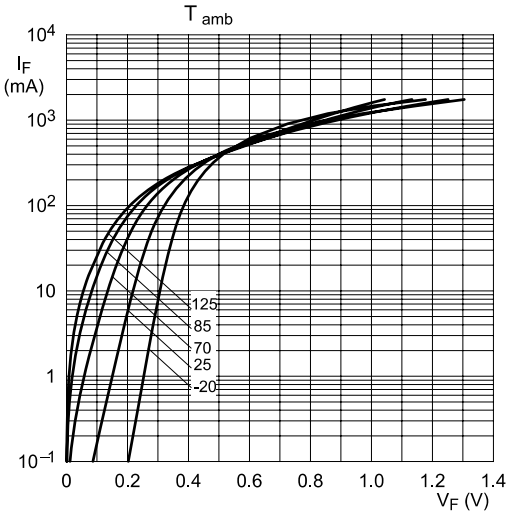


Fig 1. Forward current as a function of forward voltage; typical values

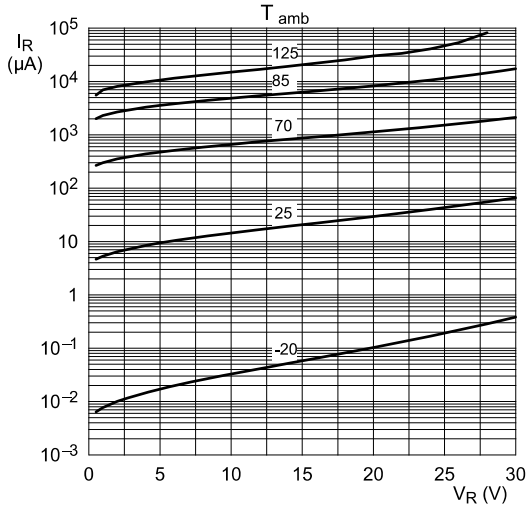
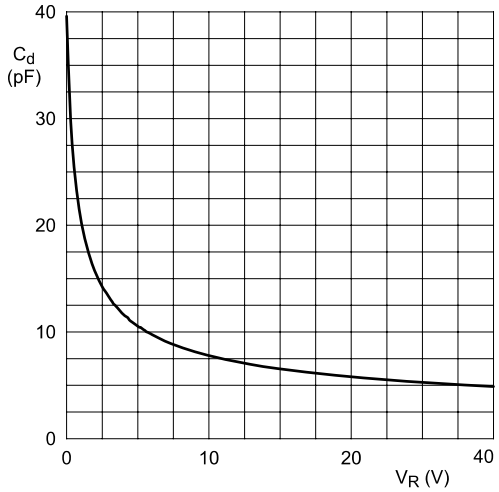


Fig 2. Reverse current as a function of reverse voltage; typical values



f = 1 MHz; T_{amb} = 25 C

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

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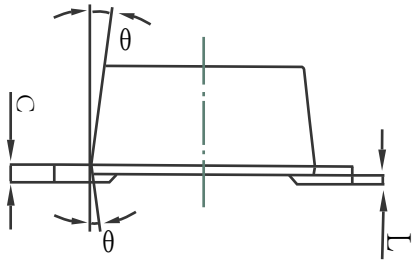
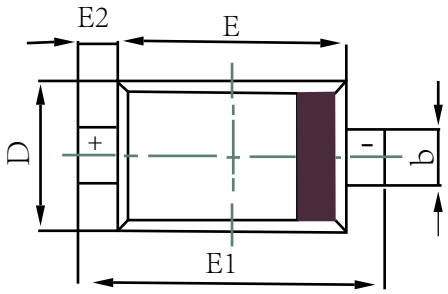
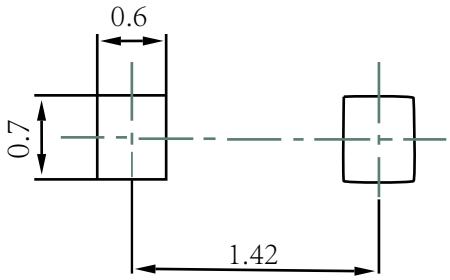
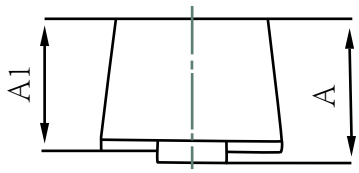
Package Dimensions

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	

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