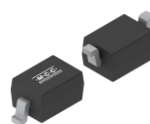


**70V, 0.07A Schottky Barrier Diode**

**Product Summary**

Parameter	Rating
$V_{RRM}$	70 V
$V_F \text{ Max @ } 15\text{mA}$	1000 mV
$I_{F(AV)}$	70 mA
$I_R \text{ Max @ } V_R = 50 \text{ V}$	0.1 $\mu\text{A}$



**Features**



- Fast Switching Speed
- Low Turn-on Voltage
- Surface Mount Package Ideally Suited for Automatic Insertion
- PN Junction Guard Ring for Transient and ESD Protection

**SOD-323**

**Mechanical Data**

- Package: SOD-323
- Moisture Sensitivity: Level 1, per J-STD-020
- Halogen Free. "Green" Device (Note<sup>1</sup>)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish & RoHS Compliant
- Weight: 0.004 g (approximate)

**Body Marking and Pin Layout**

Body Marking	Internal structure
 <p><b>XX</b>: Device Marking Code<sup>1</sup>  <b>Bar</b>: Cathode Pin indicator  <b>Dot</b>(optional): Manufacturing Site Marking</p> <p><sup>1</sup>   Refer to the ordering information for the specific device code.</p>	

**Ordering Information**

Ordering Product Name	Device Marking Code	Reel Size	Packing Type	Qty/Reel
Product Name-TP	K73	7"	Tape & Reel	3,000
Product Name-13P	K73	13"	Tape & Reel	10,000

For packaging details, visit our website at <https://www.mccsemi.com/Package/List>

**70V, 0.07A Schottky Barrier Diode**
**Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	70	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	49	V
Reverse Voltage	V <sub>R</sub>	70	V
Average Forward Current	I <sub>F(AV)</sub>	70	mA
Non-Repetitive Peak Surge Current	t <sub>p</sub> = 8.3ms Half Sine Wave, T <sub>J</sub> = 25°C	I <sub>FSM</sub>	100
Power Dissipation <sup>(Note 2)</sup>	P <sub>D</sub>	200	mW
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150	°C

- Notes:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  2. Device mounted on an FR4 Printed-Circuit Board (PCB) with the recommended pad layout.

**Thermal characteristics (T<sub>A</sub>=25°C unless otherwise specified)**

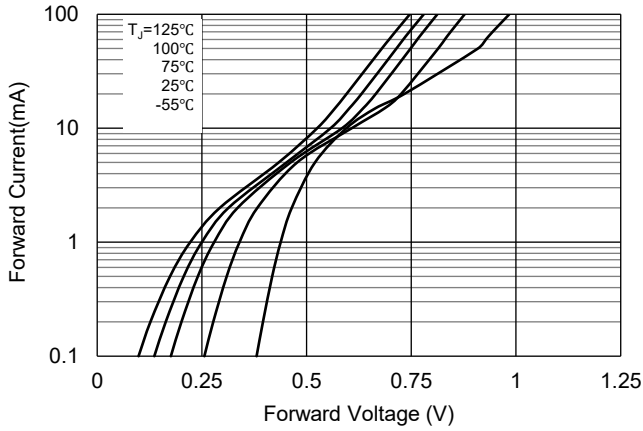
Parameter	Symbol	Rating	Unit
Thermal Resistance from Junction to Ambient <sup>(Note 2)</sup>	R <sub>θJA</sub>	500	°C/W

**Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)**

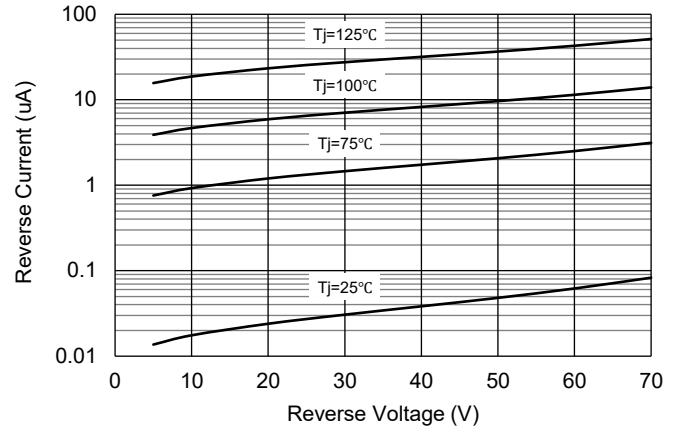
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage	I <sub>R</sub> =10 μA (pulse test)	V <sub>BR</sub>	70			V
Forward Voltage	I <sub>F</sub> = 1 mA	V <sub>F</sub>			0.41	V
	I <sub>F</sub> = 15 mA				1	
Reverse Current	V <sub>R</sub> = 50 V	I <sub>R</sub>			0.1	μA
Junction Capacitance	V <sub>R</sub> =0 V, f=1.0MHz	C <sub>J</sub>			5	pF
Reverse Recovery Time	I <sub>F</sub> =10mA, I <sub>R</sub> =10mA, I <sub>rr</sub> =0.1 x I <sub>R</sub> , R <sub>L</sub> =100Ω	t <sub>rr</sub>			5	ns

**Curve Characteristics**

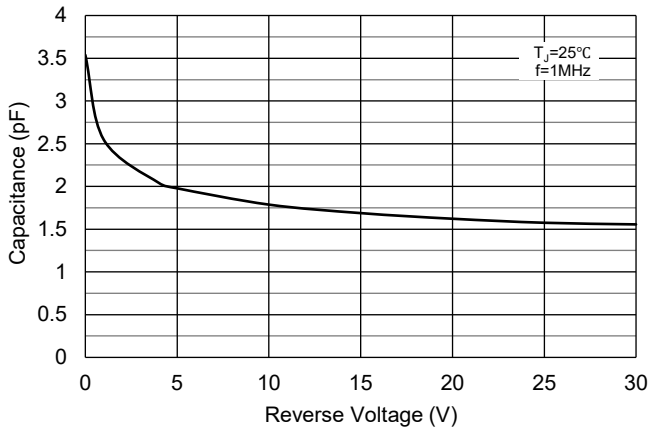
**Fig.1 - Typical Instantaneous Forward Characteristics (per diode)**



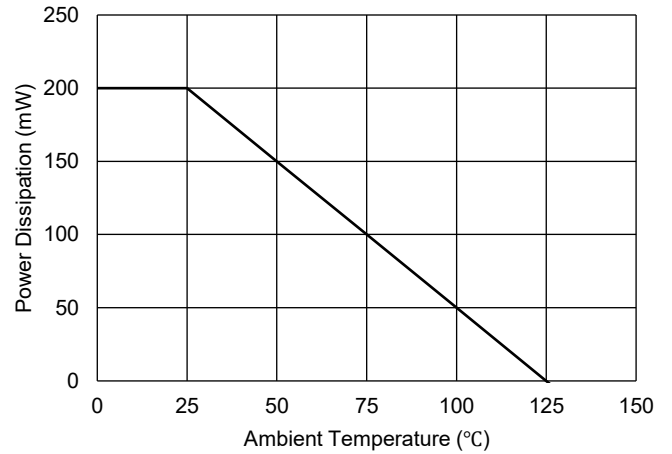
**Fig.2 - Typical Reverse Leakage Characteristics (per diode)**



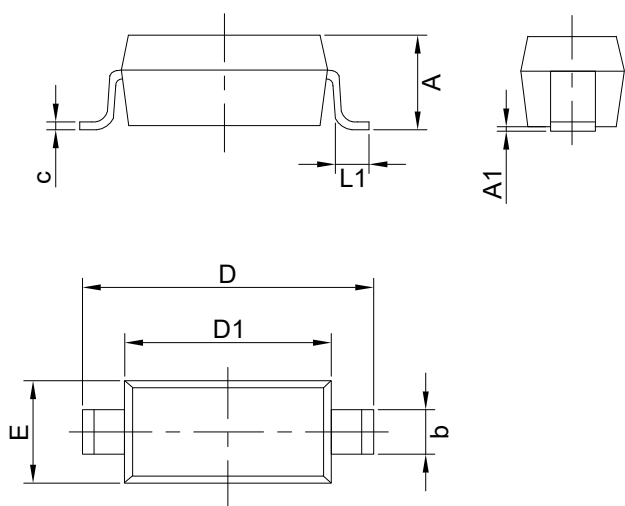
**Fig.3 - Typical Capacitance Characteristics (per diode)**



**Fig.4 - Power Derating Curve**



## Package Outline

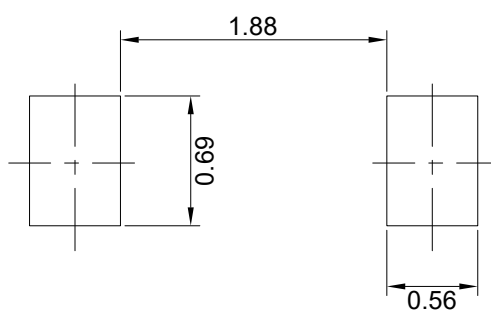


DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.031	0.045	0.80	1.15*	Note 1
A1	0.000	0.006	0.00	0.15	
b	0.010	0.016	0.25	0.40	
c	0.003	0.010	0.08	0.25	
D	0.090	0.107	2.30	2.70	
D1	0.063	0.071	1.60	1.80	
E	0.045	0.055	1.15	1.40	
L1	0.004	0.018	0.10	0.45	

**Notes:**

1. Dimension A for products from manufacturing site VN is controlled at max 1.10 mm.

## Suggested Pad Layout (Unit:mm)



**Notes:**

1. The suggested land pattern dimensions have been provided for reference only.
2. For further information, please refer to document IPC-7351A.

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