

BAS386-TR Datasheet

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|------------------------------|--|
| DiGi Electronics Part Number | BAS386-TR-DG |
| Manufacturer | Vishay General Semiconductor - Diodes Division |
| Manufacturer Product Number | BAS386-TR |
| Description | DIODE SCHOTT 50V 200MA MICROMELF |
| Detailed Description | Diode 50 V 200mA Surface Mount MicroMELF |

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Purchase and inquiry

Manufacturer Product Number:

BAS386-TR

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

200mA

Speed:

Small Signal =< 200mA (Io), Any Speed

Capacitance @ Vr, F:

880pF @ 0V, 1MHz

Package / Case:

2-SMD, No Lead

Operating Temperature - Junction:

125°C (Max)

Manufacturer:

Vishay General Semiconductor - Diodes Division

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

50 V

Voltage - Forward (Vf) (Max) @ If:

900 mV @ 100 mA

Current - Reverse Leakage @ Vr:

5 µA @ 40 V

Mounting Type:

Surface Mount

Supplier Device Package:

MicroMELF

Base Product Number:

BAS386

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99


www.vishay.com
BAS386

Vishay Semiconductors

Small Signal Schottky Diode



FEATURES

- Integrated protection ring against static discharge
- Very low forward voltage
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT
HALOGEN
FREE

LINKS TO ADDITIONAL RESOURCES



3D Models



Marking



Parametric Search



Order Samples

MECHANICAL DATA

Case: MicroMELF

Weight: approx. 12 mg

Cathode band color: black

Packaging codes/options:

TR3/10K per 13" reel (8 mm tape), 10K/box

TR/2.5K per 7" reel (8 mm tape), 12.5K/box

APPLICATIONS

- Applications where a very low forward voltage is required

PARTS TABLE

| PART | TYPE DIFFERENTIATION | ORDERING CODE | CIRCUIT CONFIGURATION | REMARKS |
|--------|----------------------|-------------------------|-----------------------|---------------|
| BAS386 | $V_R = 50\text{ V}$ | BAS386-TR3 or BAS386-TR | Single | Tape and reel |

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
|---------------------------------|-----------------------|-----------|-------|------|
| Reverse voltage | | V_R | 50 | V |
| Peak forward surge current | $t_p = 10\text{ ms}$ | I_{FSM} | 5 | A |
| Repetitive peak forward current | $t_p \leq 1\text{ s}$ | I_{FRM} | 500 | mA |
| Forward continuous current | | I_F | 200 | mA |
| Average forward current | | I_{FAV} | 200 | mA |

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
|---------------------------|---------------------------------------|------------|-------------|--------------------|
| Junction to ambient air | On PC board 50 mm x 50 mm x 1.6 mm | R_{thJA} | 320 | K/W |
| Junction temperature | | T_j | 125 | $^{\circ}\text{C}$ |
| Storage temperature range | | T_{stg} | -65 to +150 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

| PARAMETER | TEST CONDITION | SYMBOL | MIN. | TYP. | MAX. | UNIT |
|-------------------|--------------------------------------|--------|------|------|------|---------------|
| Forward voltage | $I_F = 0.1\text{ mA}$ | V_F | | | 300 | mV |
| | $I_F = 1\text{ mA}$ | V_F | | | 380 | mV |
| | $I_F = 10\text{ mA}$ | V_F | | | 450 | mV |
| | $I_F = 30\text{ mA}$ | V_F | | | 600 | mV |
| | $I_F = 100\text{ mA}$ | V_F | | | 900 | mV |
| Reverse current | $V_R = 40\text{ V}$ | I_R | | | 5 | μA |
| Diode capacitance | $V_R = 1\text{ V}, f = 1\text{ MHz}$ | C_D | | | 8 | pF |



TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

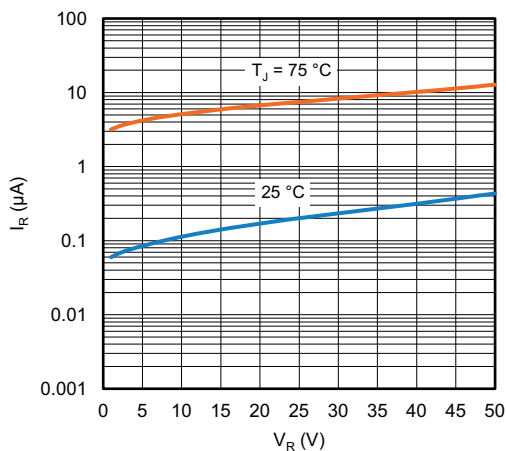


Fig. 1 - Typical Reverse Leakage Current vs. Reverse Voltage

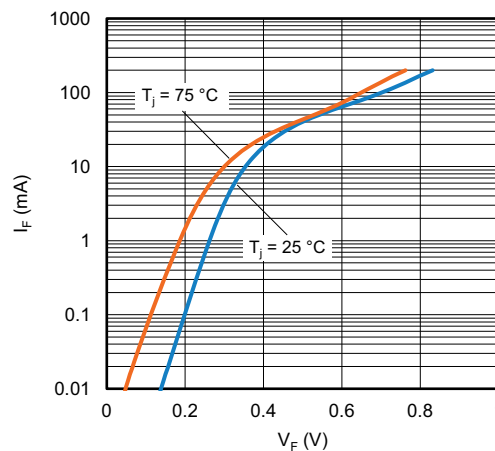


Fig. 3 - Typical Forward Current vs. Forward Voltage

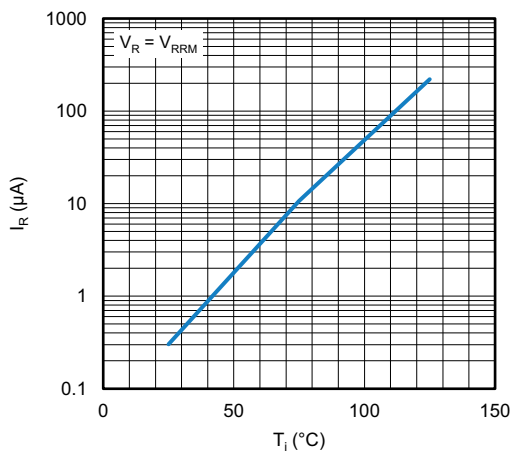


Fig. 2 - Reverse Current vs. Junction Temperature

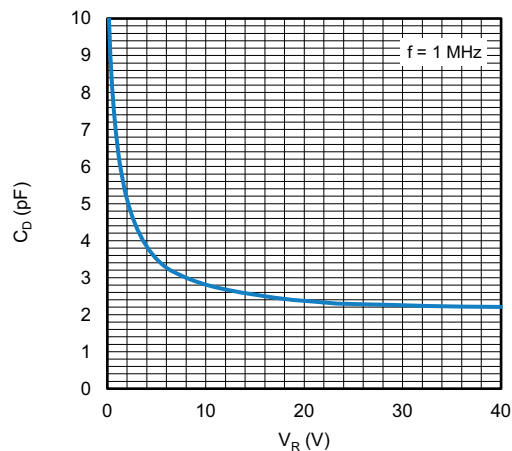
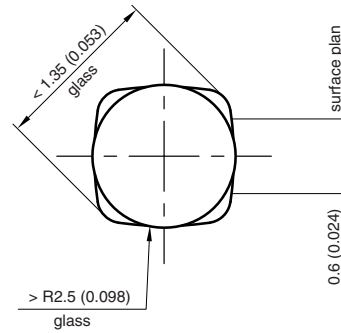
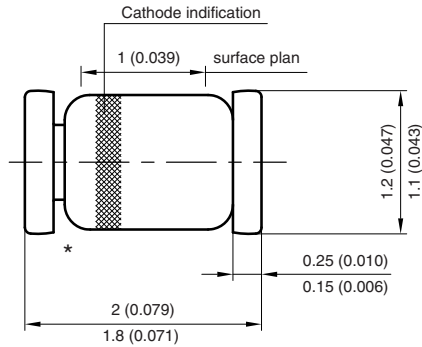


Fig. 4 - Typical Capacitance vs. Reverse Voltage

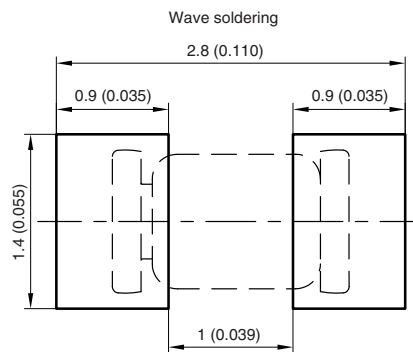
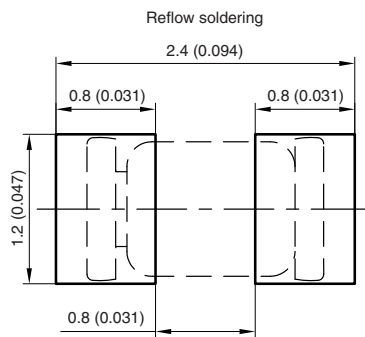


PACKAGE DIMENSIONS in millimeters (inches): **MicromELF**



* The gap between plug and glass can be either on cathode or anode side

Foot print recommendation:



Created - Date: 26.July.1996
 Rev. 13 - Date: 07.June.2006
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 96 12072



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