

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## DESCRIPTION

- Epitaxial Planar Silicon Diode

## FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

## APPLICATIONS

- High Conductance Ultra Fast Diode
- For Portable Equipment: (i.e. Mobile Phone, MP3, MD, CD-ROM, DVD-ROM, Note Book PC, etc.)

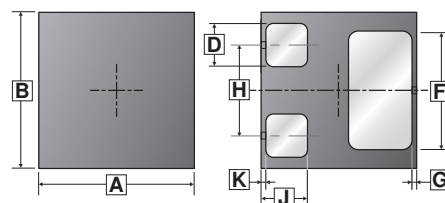
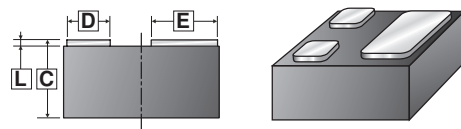
## MARKING

KA2

## PACKAGE INFORMATION

| Package   | MPQ | Leader Size |
|-----------|-----|-------------|
| WBFBP-03D | 5K  | 7 inch      |

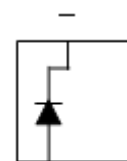
### WBFBP-03D



| REF. | Millimeter |       | REF. | Millimeter |       |
|------|------------|-------|------|------------|-------|
|      | Min.       | Max.  |      | Min.       | Max.  |
| A    | 0.950      | 1.050 | G    | -          | 0.050 |
| B    | 0.950      | 1.050 | H    | 0.510      | 0.610 |
| C    | 0.010      | 0.070 | J    | 0.250      | 0.350 |
| D    | 0.210      | 0.310 | K    | -          | 0.050 |
| E    | 0.350      | REF.  | L    | 0.450      | 0.550 |
| F    | 0.680      | REF.  |      |            |       |

## ORDER INFORMATION

| Part Number | Type                            |
|-------------|---------------------------------|
| SCS16DSTL-C | Lead (Pb)-free and Halogen-free |



+ NC  
TOP VIEW

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

| Parameters                                | Symbol                            | Ratings      | Unit |
|---|-----------------------------------|--------------|------|
| Non-Repetitive Peak Reverse Voltage       | V <sub>RM</sub>                   | 100          | V    |
| Peak Repetitive Reverse Voltage           | V <sub>RRM</sub>                  | 75           | V    |
| Working Peak Reverse Voltage              | V <sub>RWM</sub>                  | 75           | V    |
| DC Blocking Voltage                       | V <sub>R</sub>                    | 75           | V    |
| RMS Reverse Voltage                       | V <sub>R(RMS)</sub>               | 53           | V    |
| Forward Continuous Current                | I <sub>FM</sub>                   | 300          | mA   |
| Average Rectified Output Current          | I <sub>O</sub>                    | 150          | mA   |
| Non-Repetitive Peak Forward Surge Current | t=1μs                             | 2            | A    |
|   | t=1s                              | 1            |      |
| Power Dissipation                         | P <sub>D</sub>                    | 100          | mW   |
| Thermal Resistance From Junction-Ambient  | R <sub>θJA</sub>                  | 1250         | °C/W |
| Operating Junction & Storage Temperature  | T <sub>J</sub> , T <sub>STG</sub> | 125, -55~150 | °C   |

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise specified)

| Parameters   | Symbol   | Min. | Max.  | Unit          | Test Conditions   |
|--|----------|------|-------|---------------|---|
| Forward Voltage  | $V_{F1}$ | -    | 0.715 | V             | $I_F=1\text{mA}$  |
|  | $V_{F2}$ | -    | 0.855 | V             | $I_F=10\text{mA}$                                       |
|  | $V_{F3}$ | -    | 1     | V             | $I_F=50\text{mA}$                                       |
|  | $V_{F4}$ | -    | 1.25  | V             | $I_F=150\text{mA}$                                      |
| Maximum DC Reverse Current @ Rated DC Blocking Voltage | $I_{R1}$ | -    | 1     | $\mu\text{A}$ | $V_R=75\text{V}$  |
|  | $I_{R2}$ | -    | 25    | nA            | $V_R=20\text{V}$  |
| Capacitance Between Terminals                          | $C_T$    | -    | 2     | pF            | $V_R=0, f=1\text{MHz}$                                  |
| Maximum Reverse Recovery Time                          | $T_{RR}$ | -    | 4     | nS            | $I_F=I_R=10\text{mA}$<br>$I_{rr}=0.1I_R, R_L=100\Omega$ |

**CHARACTERISTIC CURVES**

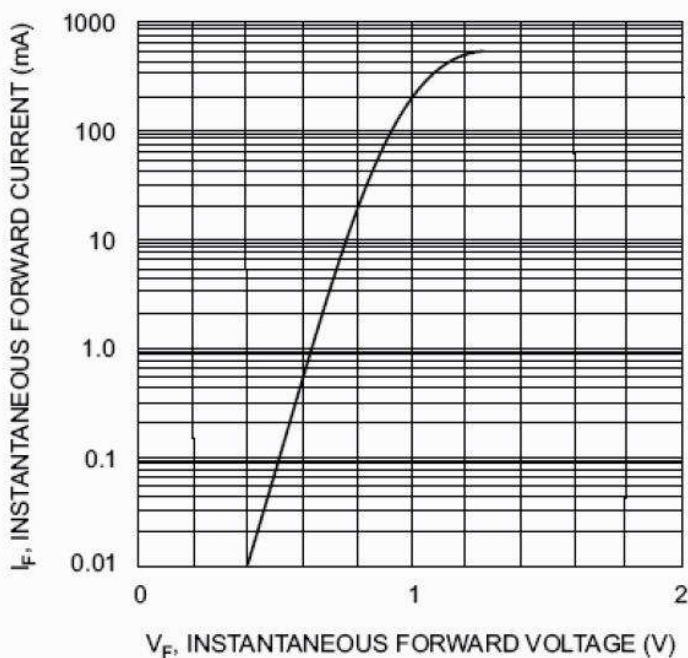


Fig. 1 Forward Characteristics

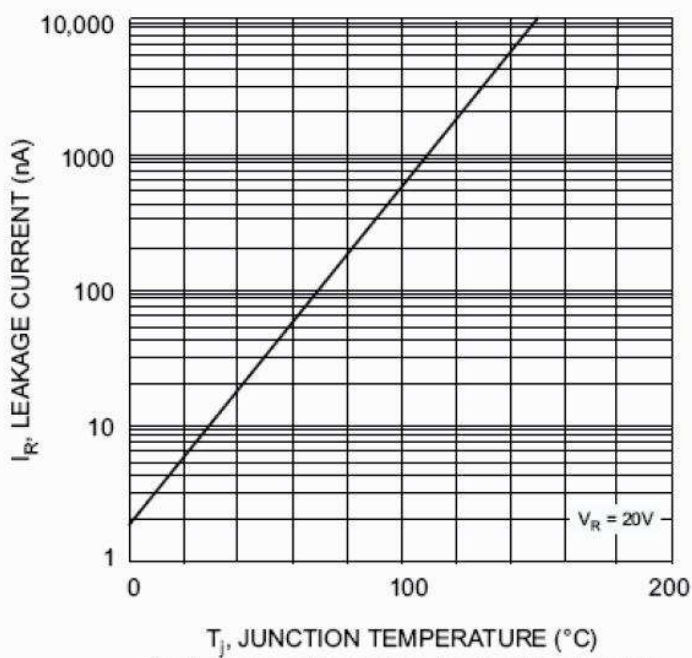


Fig. 2 Leakage Current vs Junction Temperature