

# Kingtronics®

## BAS85

### FEATURES AND BENEFITS

For general purpose applications  
This diode features very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges

### MECHANICAL DATA

Case: JEDEC mini-melf, glass case

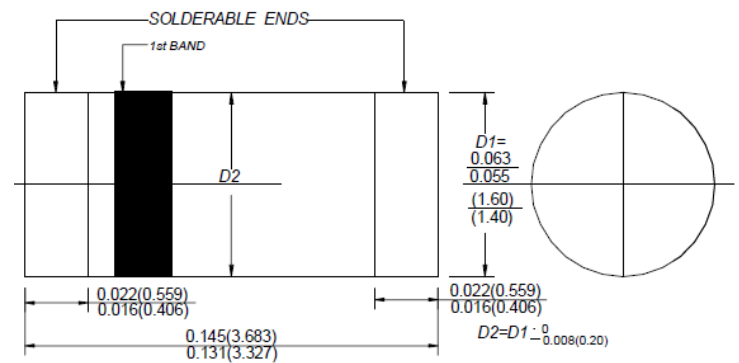
Polarity: Color band denotes cathode end

Weight: Approx. 0.031 grams

### SMALL SIGNAL SCHOTTKY DIODES

VOLTAGE RANGE: 30 V CURRENT: 0.2

### Mini-melf



### ABSOLUTE RATINGS

	Symbol	Value	UNITS
Continuous reverse voltage	$V_R$	30.0	V
Forward continuous current @ $T_A=25^\circ\text{C}$	$I_F$	200 <sup>1)</sup>	mA
Peak forward current @ $T_A=25^\circ\text{C}$	$I_{FM}$	300 <sup>1)</sup>	mA
Surge forward current @ $t_p < 1\text{s}, T_A=25^\circ\text{C}$	$I_{FSM}$	600 <sup>1)</sup>	mA
Power dissipation @ $T_A=65^\circ\text{C}$	$P_{tot}$	200 <sup>1)</sup>	mW
Junction temperature	$T_J$	125	$^\circ\text{C}$
Ambient operating temperature range	$T_A$	-55 --- + 125	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 --- + 150	$^\circ\text{C}$

1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature

**Kingtronics® International Company**

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**Kingtronics**®**BAS85****ELECTRICAL CHARACTERISTICS**

	Symbol	Min	Typ	Max	UNITS
Reverse breakdown voltage	$V_R$	30.0		240	V
Forward voltage					
Pulse test $t_p < 300 \mu s$ , $< 2\%$				0.24	V
@ $I_F = 0.1 \text{mA}$				0.32	V
@ $I_F = 1 \text{mA}$	$V_F$		0.5	0.4	V
@ $I_F = 10 \text{mA}$					V
@ $I_F = 30 \text{mA}$				0.8	V
@ $I_F = 100 \text{mA}$					V
Leakage current $V_R = 25 \text{V}$	$I_R$			2.0	$\mu\text{A}$
Junction capacitance at $V_R = 1 \text{V}$ , $f = 1 \text{MHz}$	$C_J$			10	pF
Reverse recovery time @ $I_F = 10 \text{mA}$ , $I_R = 10 \text{mA}$ , $I_R = 1 \text{mA}$	$t_{rr}$			5	ns
Thermal resistance junction to ambient	$R_{\theta JA}$			430 <sup>1)</sup>	$^{\circ}\text{C/W}$

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## BAS85

### RATING S AND CHARACTERISTIC CURVES

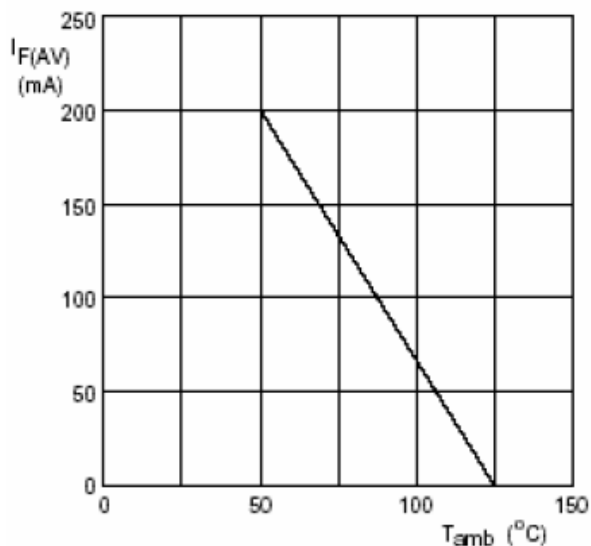
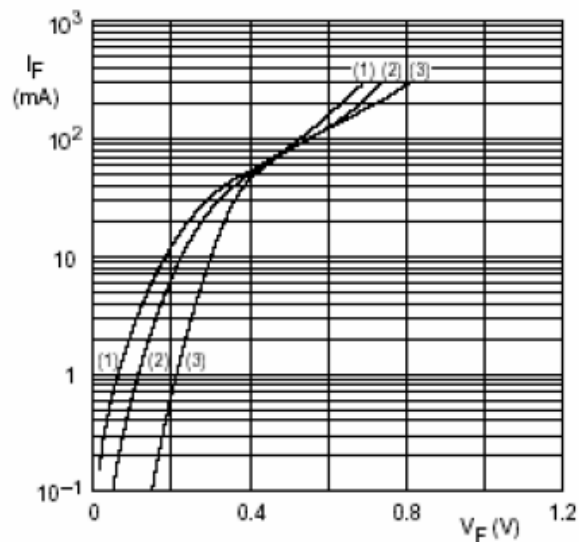
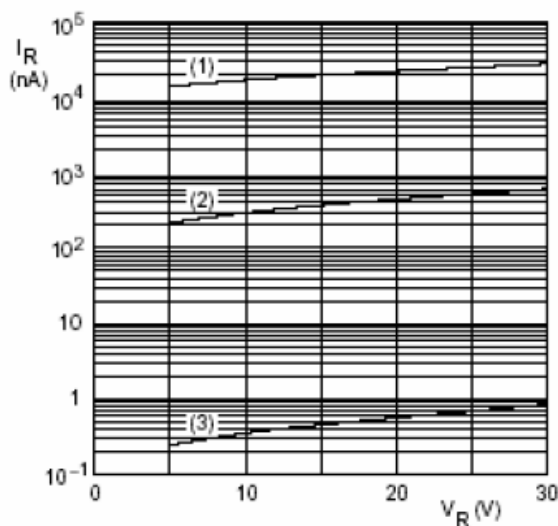


Fig. 1 Derating curve.



- (1) T<sub>amb</sub> = 125 °C.
- (2) T<sub>amb</sub> = 85 °C.
- (3) T<sub>amb</sub> = 25 °C.

Fig. 2 Forward current as a function of forward voltage; typical values.



- (1) T<sub>amb</sub> = 85 °C.
- (2) T<sub>amb</sub> = 25 °C.
- (3) T<sub>amb</sub> = -40 °C.

Fig. 3 Reverse current as a function of reverse voltage; typical values.

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