

Features

- Lead free as standard
- RoHS compliant*
- Leadless
- Low stored charge

Applications

- Cellular phones
- PDAs
- Desktop PCs and notebooks
- Digital cameras
- MP3 players

Schottky Barrier Chip Diode Series - 0805

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Symbol	HB30S40	HB100S30	HB100S30L	HB100S45	HB200S30	HB200S45	Unit
Forward Voltage (Max.)	V_F	0.37 ($I_f = 1\text{ mA}$)	1.00 ($I_f = 0.1\text{ A}$)	0.44 ($I_f = 0.1\text{ A}$)	0.55 ($I_f = 0.1\text{ A}$)	0.50 ($I_f = 0.2\text{ A}$)	0.55 ($I_f = 0.2\text{ A}$)	V
Capacitance Between Terminals (Max.) ($f = 1\text{ MHz}$)	C_T	2 ($V_r = 1\text{ V}$)	6 ($V_r = 10\text{ V}$)	12 ($V_r = 10\text{ V}$)	6 ($V_r = 10\text{ V}$)	12 ($V_r = 10\text{ V}$)	12 ($V_r = 10\text{ V}$)	pF
Reverse Current (Max.)	I_R	1 ($V_r = 40\text{ V}$)	2 ($V_r = 25\text{ V}$)	30 ($V_r = 30\text{ V}$)	30 ($V_r = 45\text{ V}$)	30 ($V_r = 30\text{ V}$)	30 ($V_r = 45\text{ V}$)	μA

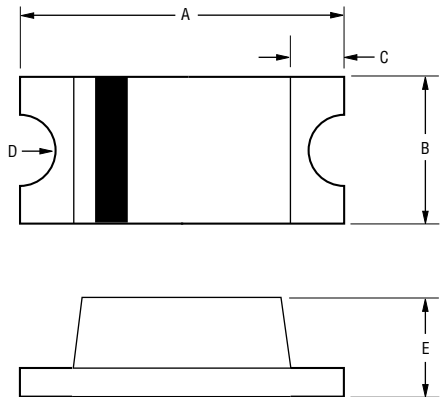
Absolute Ratings (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Symbol	HB30S40	HB100S30	HB100S30L	HB100S45	HB200S30	HB200S45	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	45	30	35	50	35	50	V
Reverse Voltage	V_R	40	30	30	45	30	45	V
Average Forward Current	I_O	30	100	100	100	200	200	mA
Forward Current, Surge Peak	I_{surge}	500*	1000*	1000*	1000*	3000*	3000*	mA
Power Dissipation	PD	200	300	300	300	300	250	mW
Storage Temperature	T_{STG}	-40 to +125						$^\circ\text{C}$
Junction Temperature	T_J	-40 to +125						$^\circ\text{C}$

* Condition: 8.3 ms single half sine-wave superimposed on rate load (JEDEC method).

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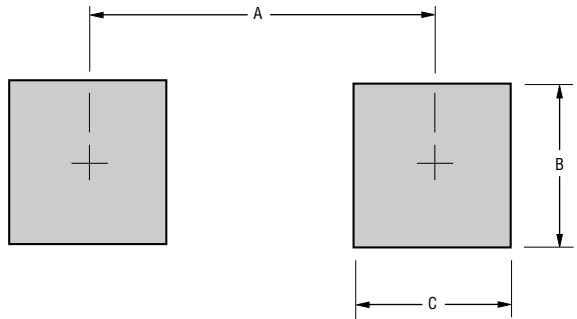
Product Dimensions



Dimension	0805
A	$\frac{2.00 - 2.20}{(0.079 - 0.087)}$
B	$\frac{1.20 - 1.40}{(0.047 - 0.055)}$
C	$\frac{0.40}{(0.016)}$ Typ.
D	$\frac{0.20}{(0.008)}$ R Typ.
E	$\frac{0.90 - 1.10}{(0.035 - 0.043)}$

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Recommended Pad Layout



Dimension	0805
A (Max.)	$\frac{2.10}{(0.082)}$
B (Min.)	$\frac{1.20}{(0.047)}$
C (Min.)	$\frac{1.20}{(0.047)}$

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Physical Specifications

Case.....0805(2012) Molded plastic
TerminalsSolder plated, solderable per MIL-STD-750,
Method 2026
PolarityIndicated by cathode band
Mounting PositionAny
Weight0.000159 ounces / 0.0045 grams

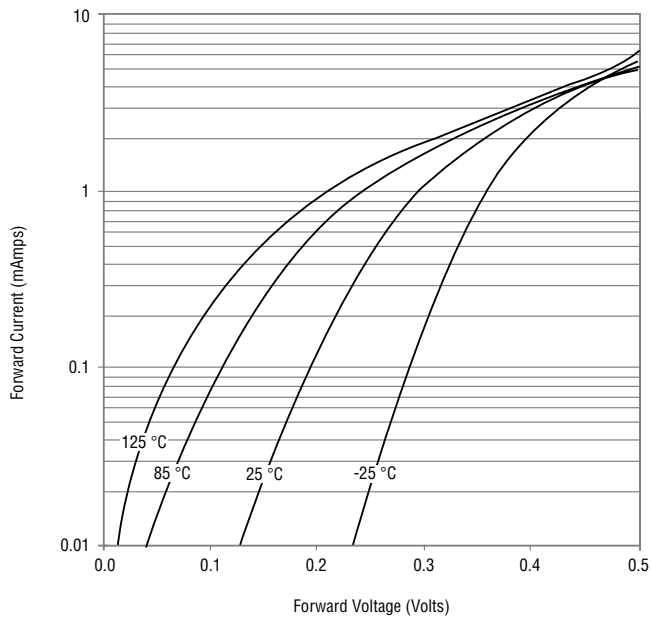
Typical Part Marking

HB30S40	B2
HB100S30	B1
HB100S30L	B3
HB100S45	B4
HB200S30	B5
HB200S45	B6

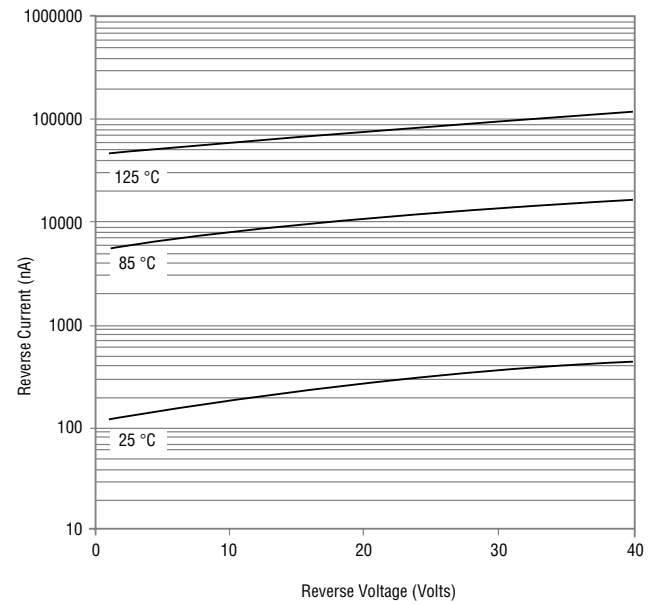
Schottky Barrier Chip Diode Series - 0805

Rating and Characteristic Curves: HB30S40

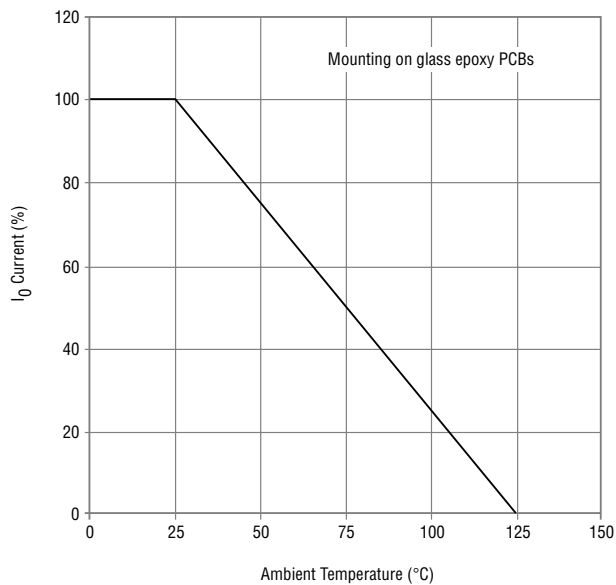
Forward Characteristics



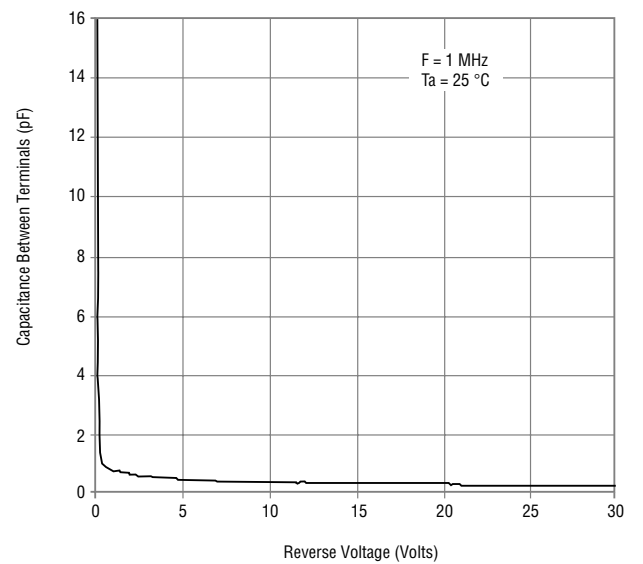
Reverse Characteristics



Derating Curve



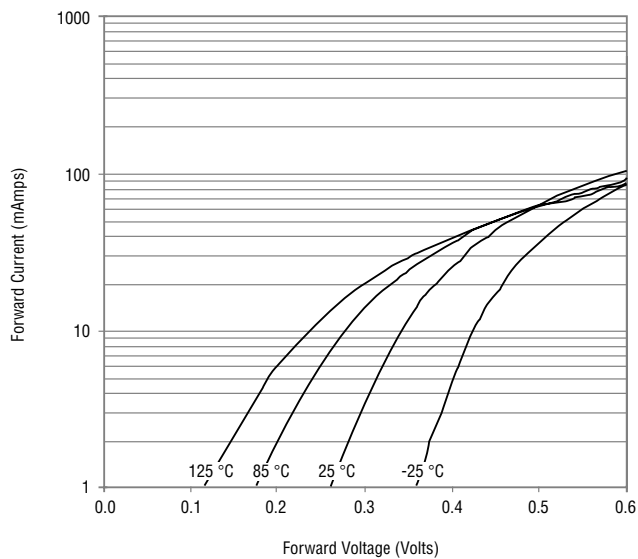
Capacitance Between Terminals



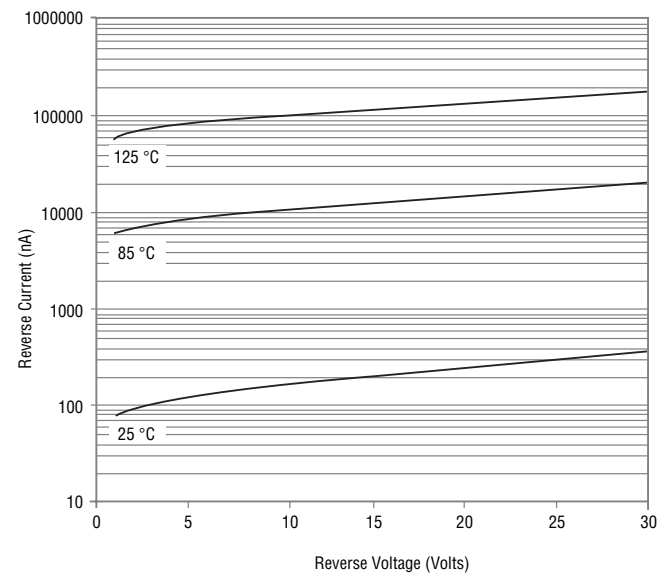
Schottky Barrier Chip Diode Series - 0805

Rating and Characteristic Curves: HB100S30

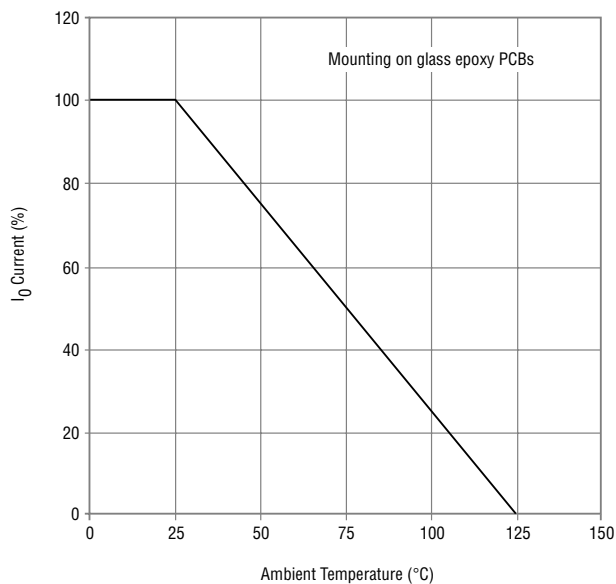
Forward Characteristics



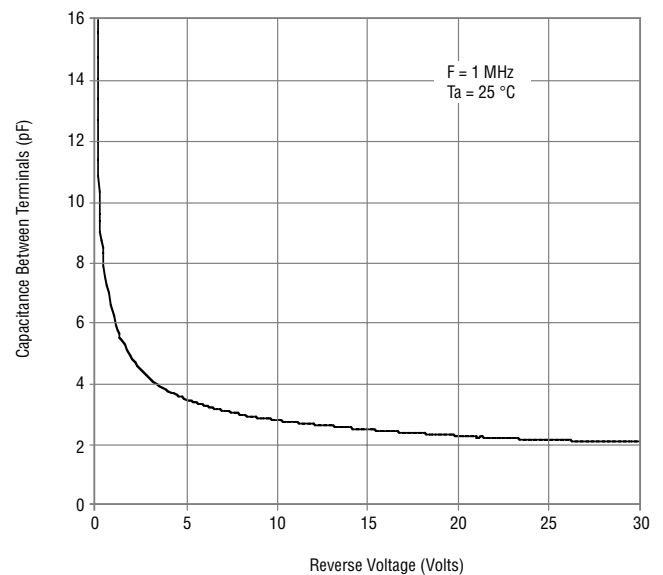
Reverse Characteristics



Derating Curve



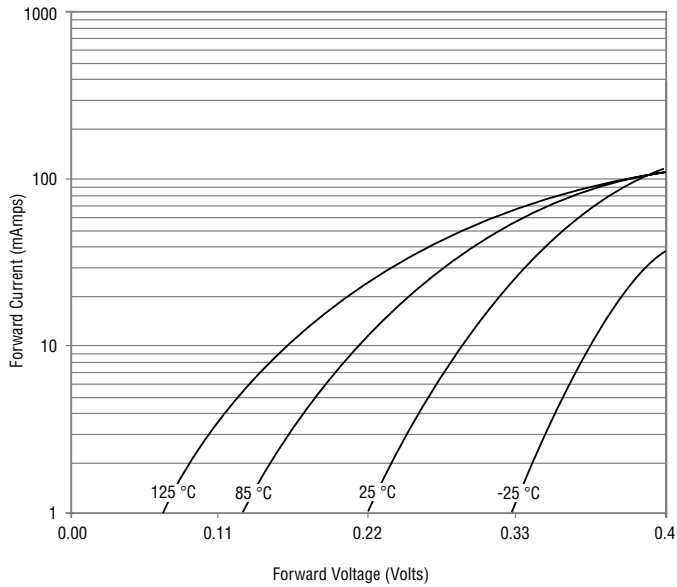
Capacitance Between Terminals



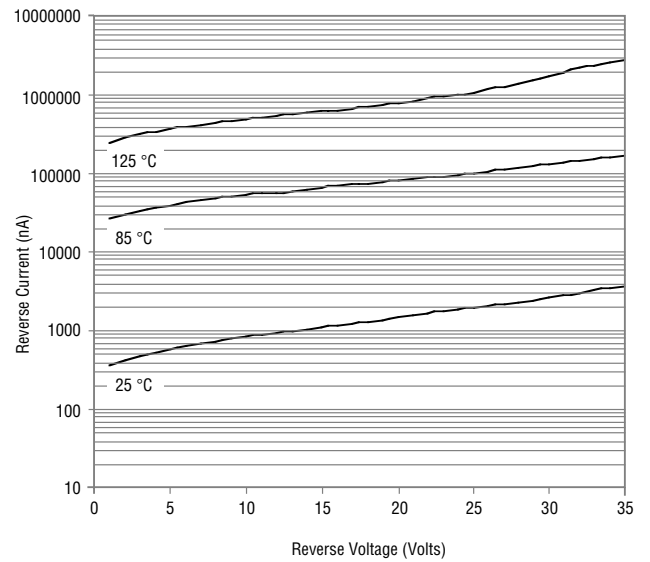
Schottky Barrier Chip Diode Series - 0805

Rating and Characteristic Curves: HB100S30L

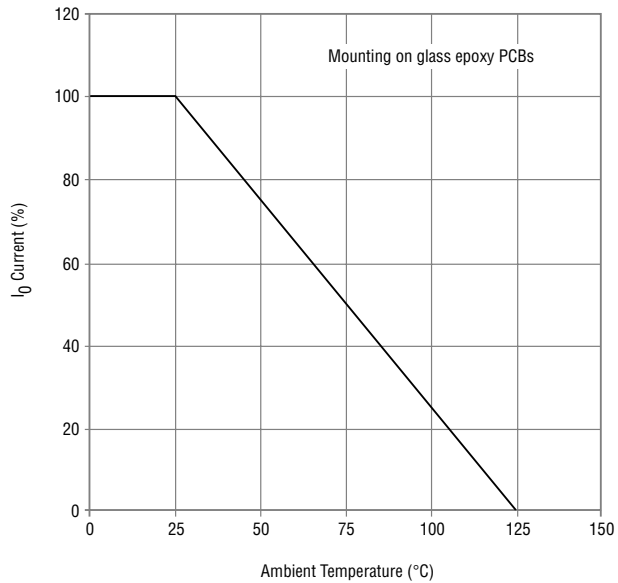
Forward Characteristics



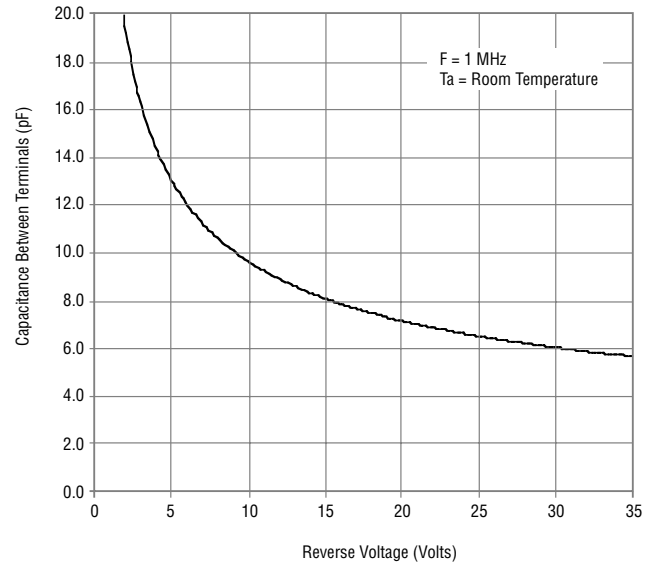
Reverse Characteristics



Derating Curve



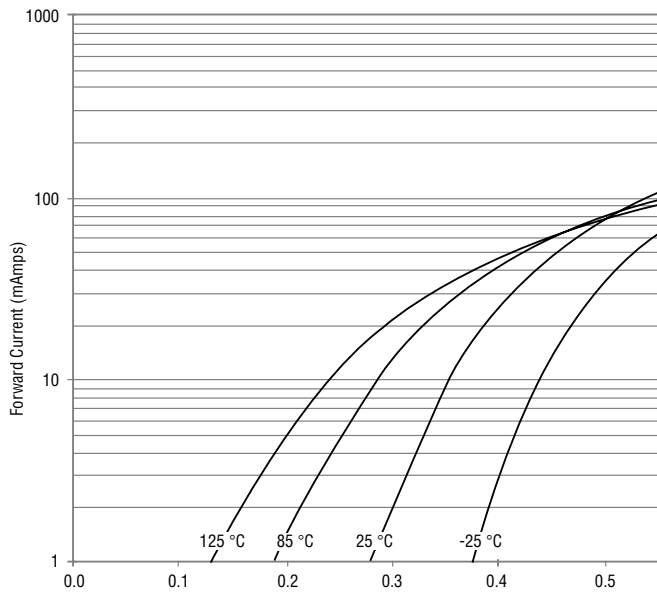
Capacitance Between Terminals



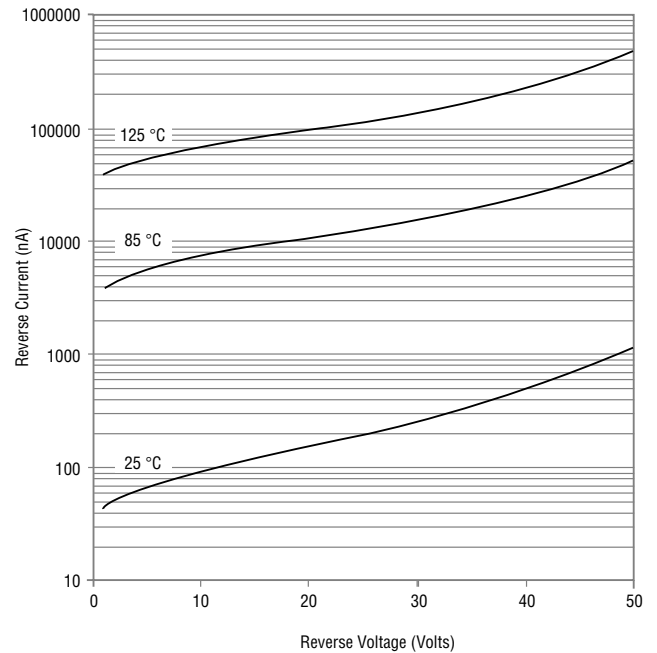
Schottky Barrier Chip Diode Series - 0805

Rating and Characteristic Curves: HB100S45

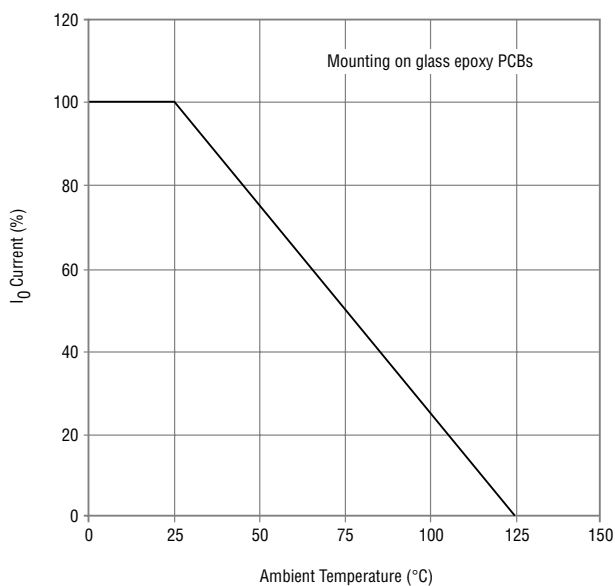
Forward Characteristics



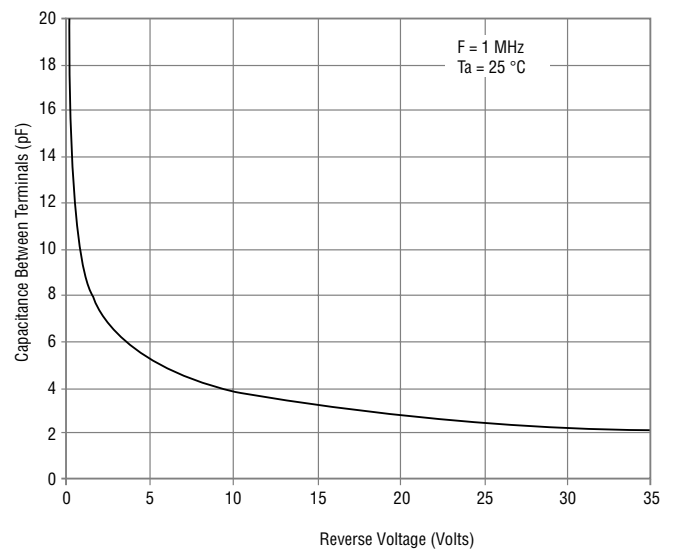
Reverse Characteristics



Derating Curve



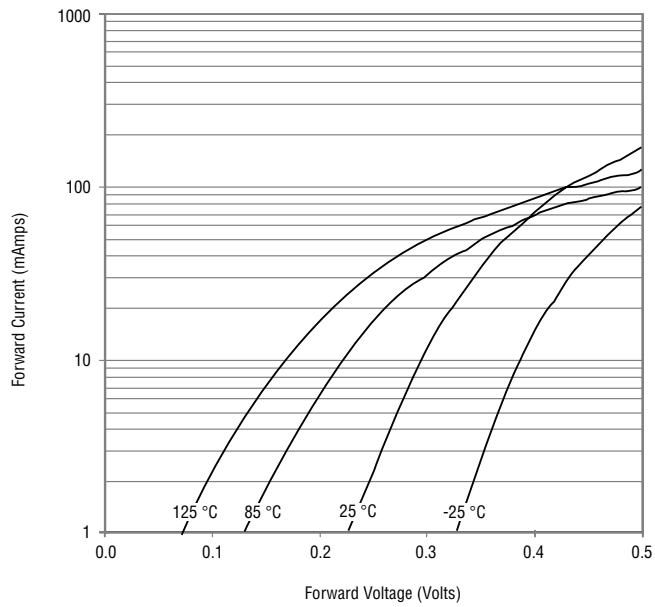
Capacitance Between Terminals



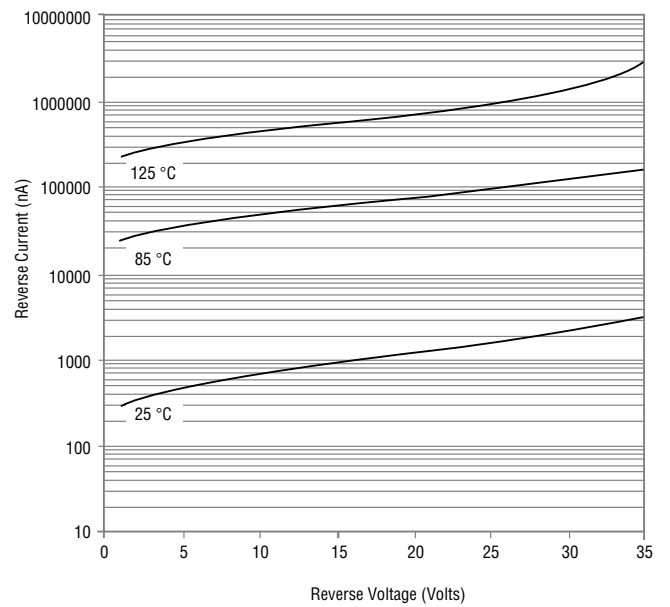
Schottky Barrier Chip Diode Series - 0805

Rating and Characteristic Curves: HB200S30

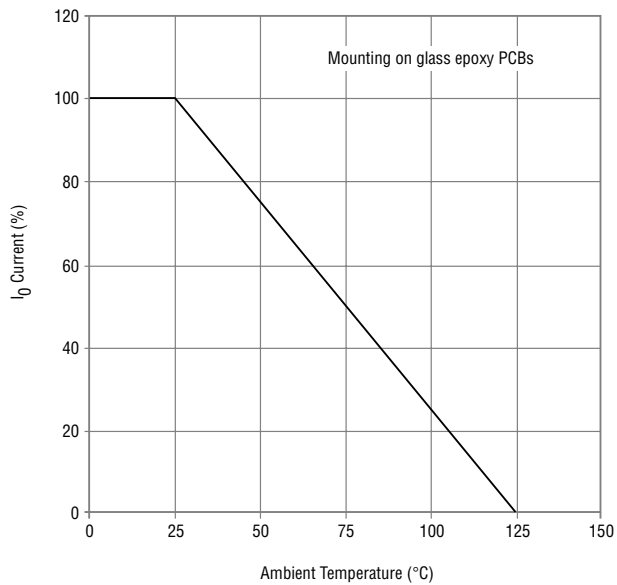
Forward Characteristics



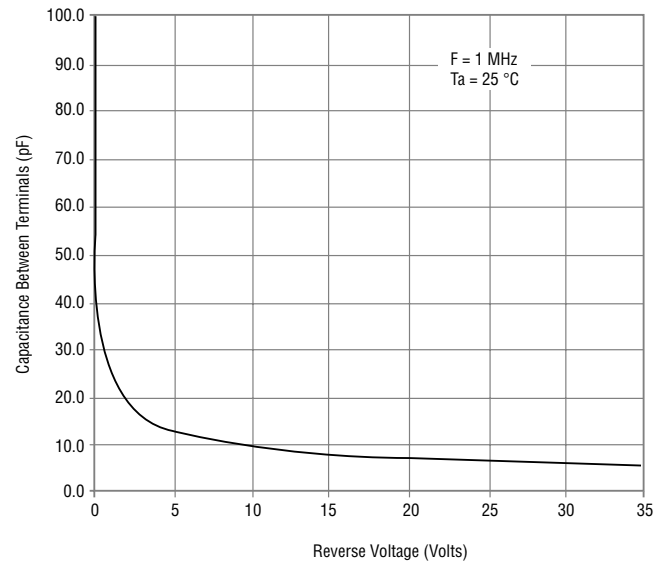
Reverse Characteristics



Derating Curve



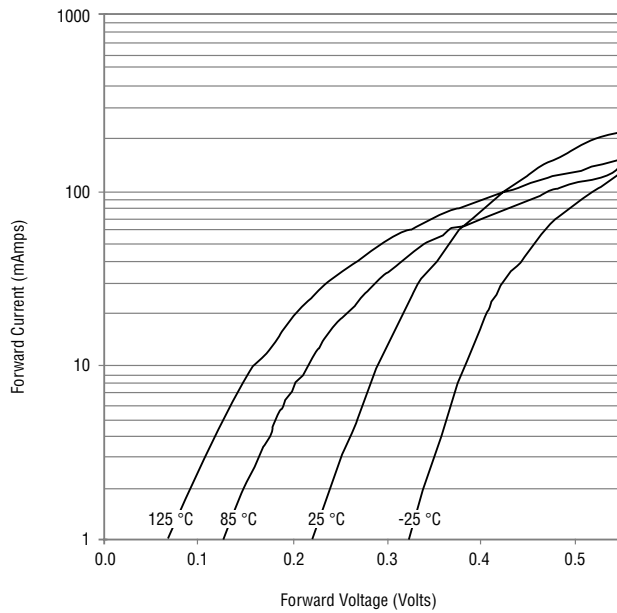
Capacitance Between Terminals



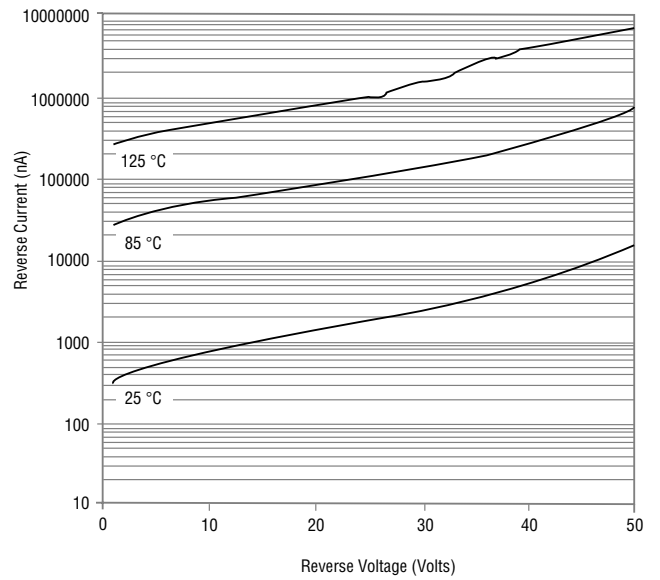
Schottky Barrier Chip Diode Series - 0805

Rating and Characteristic Curves: HB200S45

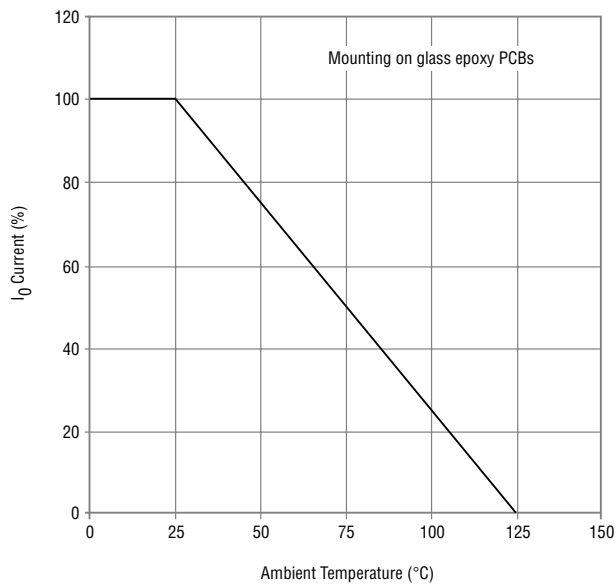
Forward Characteristics



Reverse Characteristics



Derating Curve



Capacitance Between Terminals

