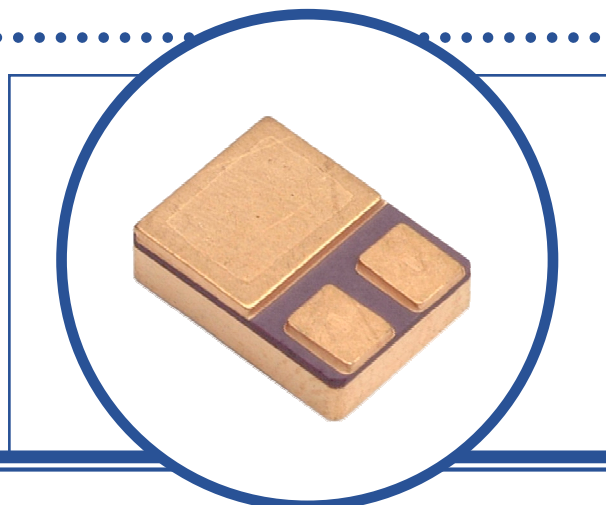


# SHOTTKY BARRIER RECTIFIER DIODE

## SB10-150SMD05

- Low Forward Voltage
- Low Reverse Leakage Current
- Hermetic Ceramic Surface Mount Package
- Suitable for applications requiring efficient power rectification at high frequencies. These include high frequency DC to DC converters and switch mode power supplies.
- Screening Options Available



### ABSOLUTE MAXIMUM RATINGS ( $T_C = 25^\circ\text{C}$ unless otherwise stated)

$V_{RRM}$	Repetitive Peak Reverse Voltage	150V
$V_{RWM}$	Working Peak Reverse Voltage	150V
$V_R$	DC Reverse Voltage	150V
$I_{F(AV)}$	Average Forward Current	10A
$I_{FSM}$	Surge Current, half sine wave, $t_p = 10\text{ms}$	115A
$P_D^{(1)}$	Total Power Dissipation at $T_C = 25^\circ\text{C}$	50W
	Derate Above $25^\circ\text{C}$	0.33W/ $^\circ\text{C}$
$T_J$	Junction Temperature Range	-55 to $+175^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55 to $+175^\circ\text{C}$

### THERMAL PROPERTIES

Symbols	Parameters	Min.	Typ.	Max.	Units
$R_{\theta JC}$	Thermal Resistance, Junction To Case			3	$^\circ\text{C/W}$

Semelab Limited reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

# SHOTTKY BARRIER RECTIFIER DIODE SB10-150SMD05

## ELECTRICAL CHARACTERISTICS ( $T_C = 25^\circ\text{C}$ unless otherwise stated)

Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
$V_F^{(1)}$	Forward Voltage	$I_F = 10\text{A}$			1.1	V
		$I_F = 10\text{A}$ $T_J = 125^\circ\text{C}$			0.86	
$I_R^{(1)}$	Reverse Current	$V_R = 150\text{V}$			0.05	mA
		$V_R = 150\text{V}$ $T_J = 125^\circ\text{C}$			7	

## DYNAMIC CHARACTERISTICS

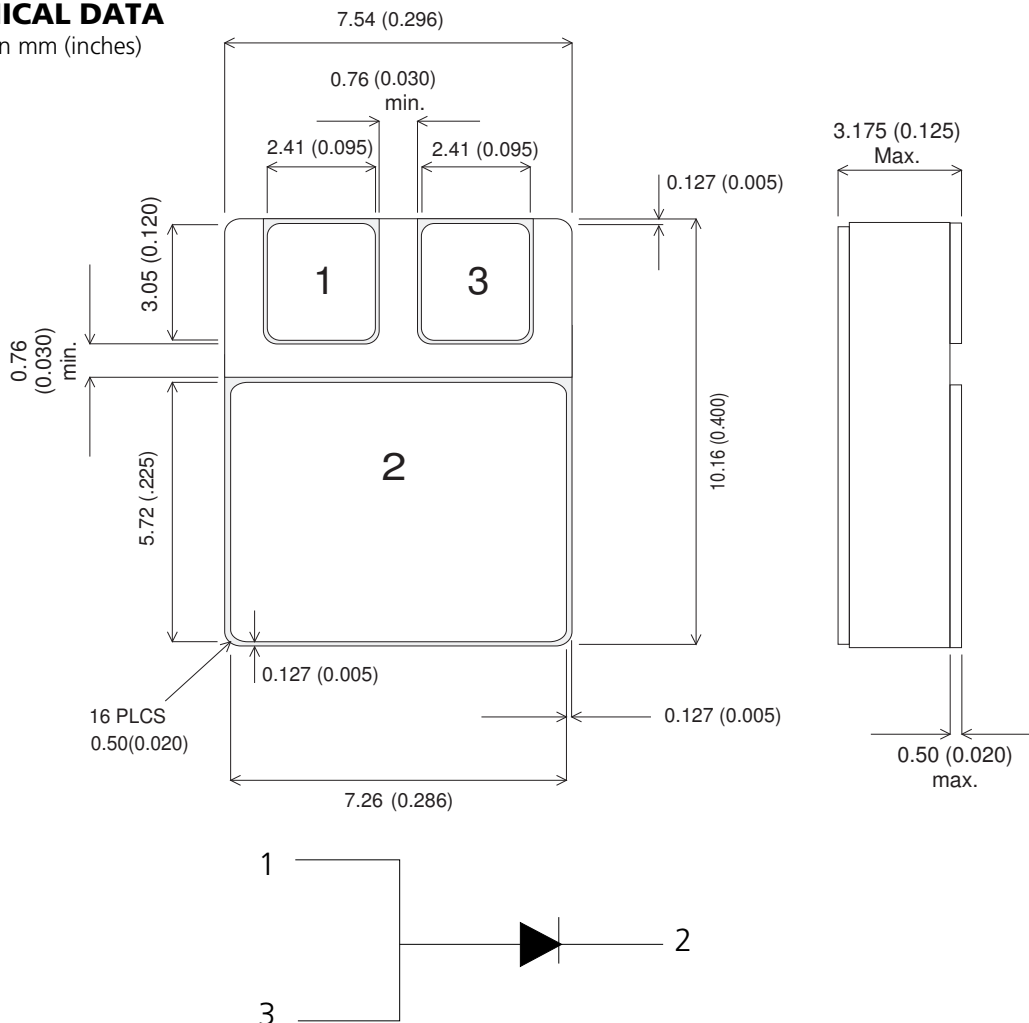
$C_T$	Junction Capacitance	$V_R = 5\text{V}$	$f = 1.0\text{MHz}$			200	pF
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### Notes

(1) Pulse Width  $\leq 300\mu\text{s}$ ,  $\delta \leq 2\%$

## MECHANICAL DATA

Dimensions in mm (inches)



**SMD05 (TO-276AA)**  
(Underside View)

Pad 1 - Anode    Pad 2 - Cathode    Pad 3 - Anode