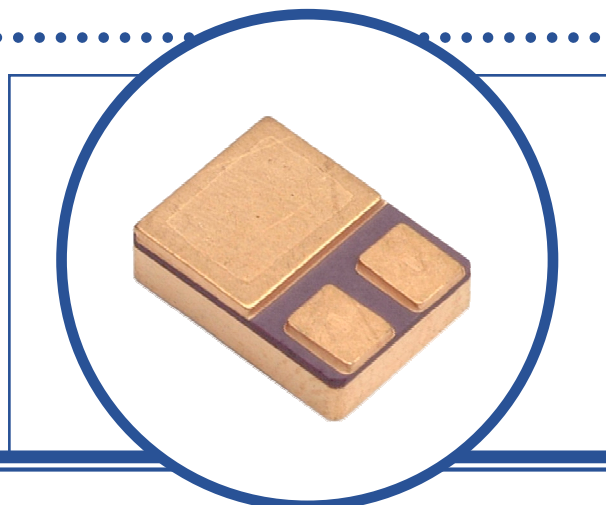


SHOTTKY BARRIER RECTIFIER DIODE

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°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

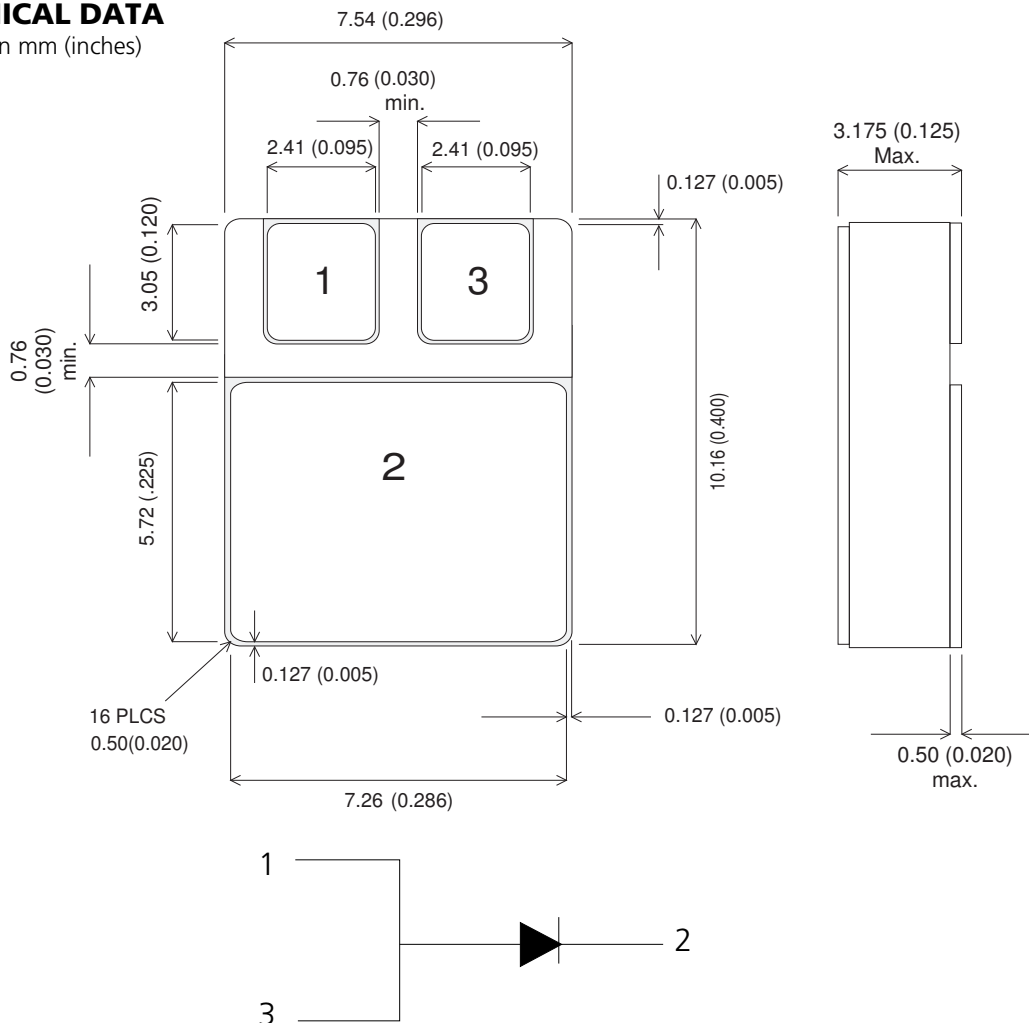
C_T	Junction Capacitance	$V_R = 5\text{V}$	$f = 1.0\text{MHz}$			200	pF
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Notes

(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