1N5817W

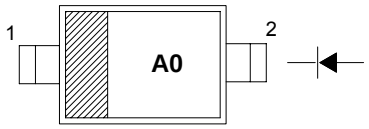
1.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features:

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: "A0"
Simplified outline SOD-123 and symbol

Mechanical Data:

Case: SOD-123, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band

Absolute Maximum Ratings (T_a = 25°C)

	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage at I_R=1.0mA	V_{RWM}	20	V
DC Blocking Voltage	V_R	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified Output Current at T_L=90℃	I_O	1.0	A
Power Dissipation	P_{tot}	450	mW
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25	A
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	222	℃/W
Operating Temperature Range	T_j	-65 to +125	℃
Storage Temperature Range	T_S	-65 to +150	℃

Characteristics at T_{amb} = 25℃

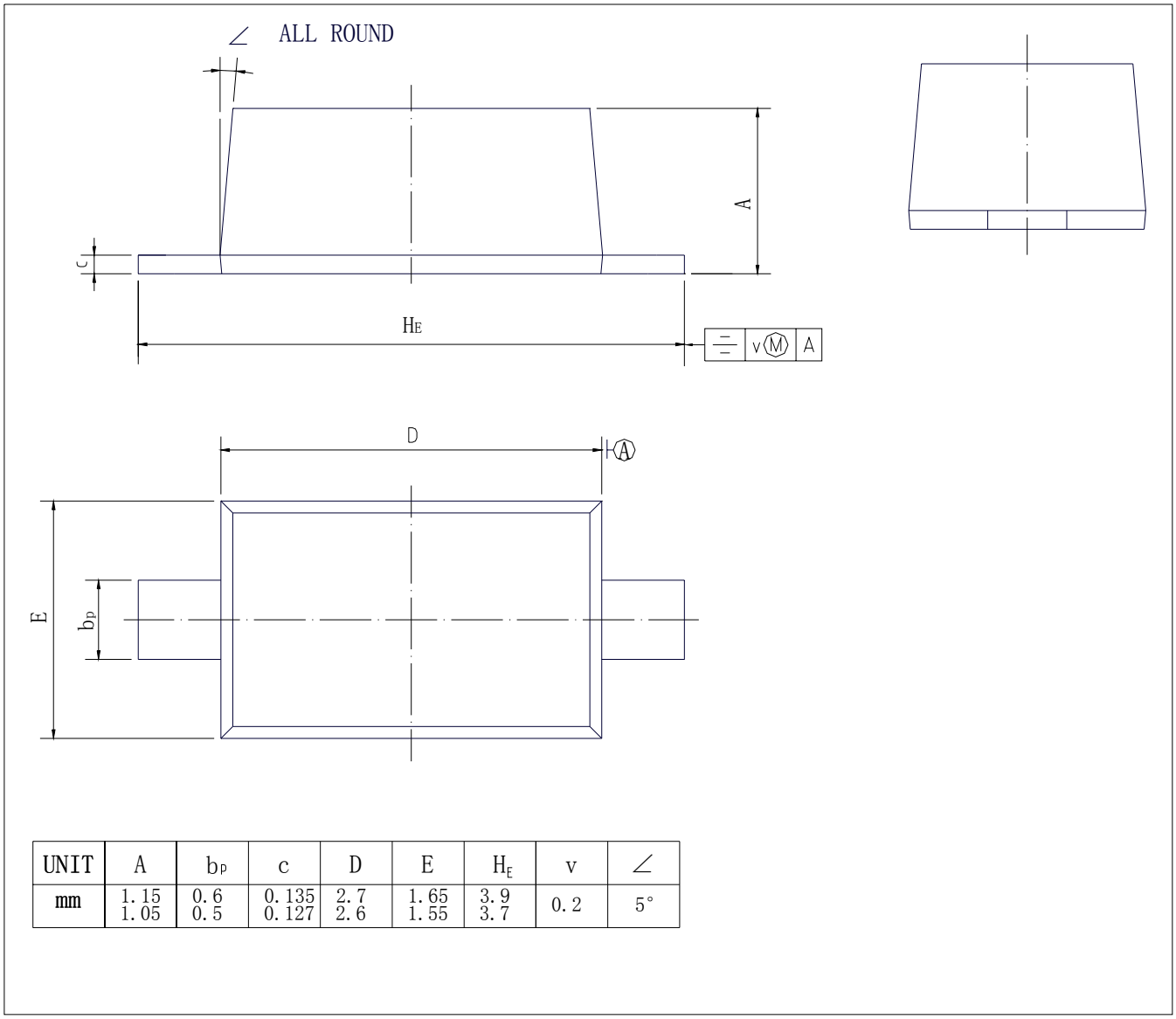
		Symbol	Min.	Typ.	Max.	Unit
Forward Voltage (Note 1)	at I_F = 0.1A	V_{FM}	-	-	0.32	V
	at I_F = 1.0A	V_{FM}	-	-	0.45	V
	at I_F = 3.0A	V_{FM}	-	-	0.75	V
Reverse Breakdown Voltage	at I_R=1.0mA	$V_{(BR)R}$	20	-	-	V
Reverse Leakage Current (Note 1)	at V_R=20V	I_{RM}	-	-	1	mA
	at V_R=20V,T_A=100℃		-	-	10	mA
	at V_R=2V		-	10	50	μA
	at V_R=2V, T_A=100℃		-	1	2	mA
	at V_R=3V		-	15	75	μA
	at V_R=3V, T_A=100℃		-	1.5	3	mA
Typical Junction Capacitance at V_R = 2V, f = 1MHz		C_J	-	110	-	pF

Notes:

1. Pulse Test: Pulse width≦200 μs, Duty Cycle≦2%.

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	b_p	c	D	E	H_E	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.127	2.7 2.6	1.65 1.55	3.9 3.7	0.2	5°