A-405 Axial Schottky Barrier Rectifier

Features

- Low power loss
- Extremely fast switching
- High frequency operation
- High surge current capability
- Guardring for over voltage protection

Reverse Voltage
20-40 V
Forward Current
1 Ampere

Applications

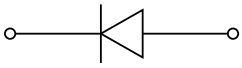
These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping.

A-405

Mechanical Data

- Case: A-405
  Molding compound meets UL 94V-0 flammability rating
- Terminals: Solder plated, solderable per MIL-STD-202,Method 208 guranteed
- Polarity: Cathode line denotes the cathode end

Function Diagram



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	1N5817S	1N5818S	1N5819S
Device marking code			1N5817S	1N5818S	1N5819S
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	30	40
Maximum RMS Voltage	V_{RMS}	V	14	21	28
Maximum DC blocking Voltage	V_{DC}	V	20	30	40
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	1.0		
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	30		
Storage temperature	T_{stg}	°C	-55 ~ +150		
Junction temperature	T_j	°C	-55 ~ +125		
Typical Thermal Resistance	$R_{\theta J-C}$	°C /W	32		

Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	1N5817S	1N5818S	1N5819S
Maximum instantaneous forward voltage	I_F=1.0A	V_F	V	0.55		
Maximum DC reverse currentat rated DC blocking voltage	V_R=V_{DC}, T_A=25°C	I_{R1}	mA	0.2		
	V_R=V_{DC}, T_A=100°C	I_{R2}		20		
Typical junction capacitance	4.0V DC,1MHz	C_J	pF	60		

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

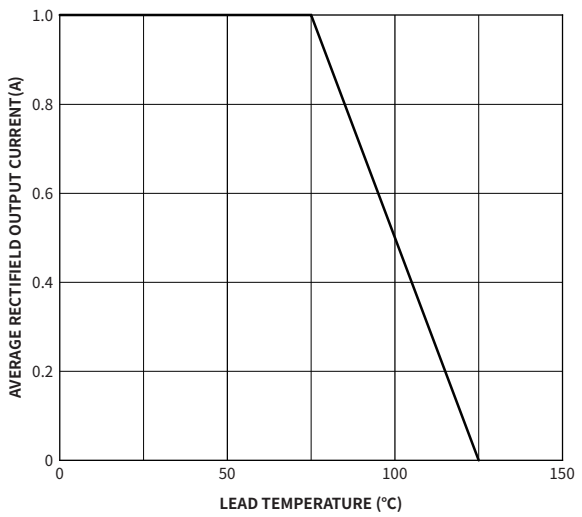


Fig.1 Forward Current Derating Curve

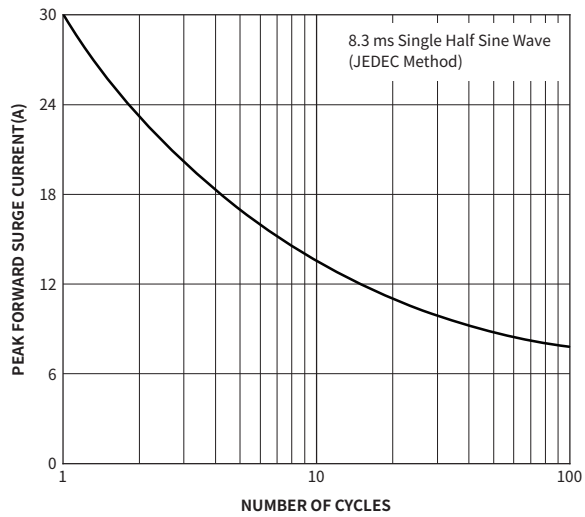


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

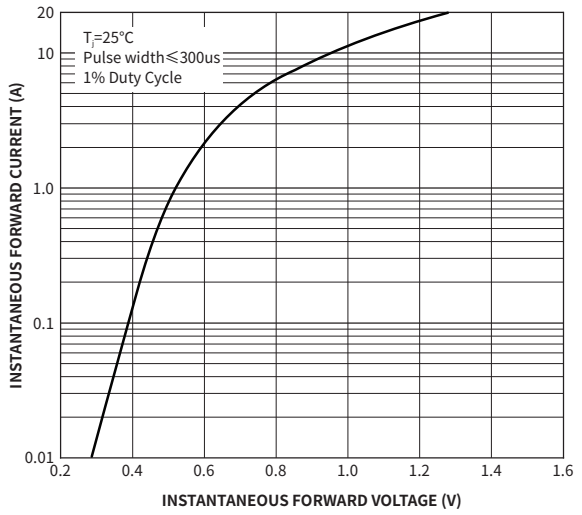


Fig.3 Typical Forward Voltage

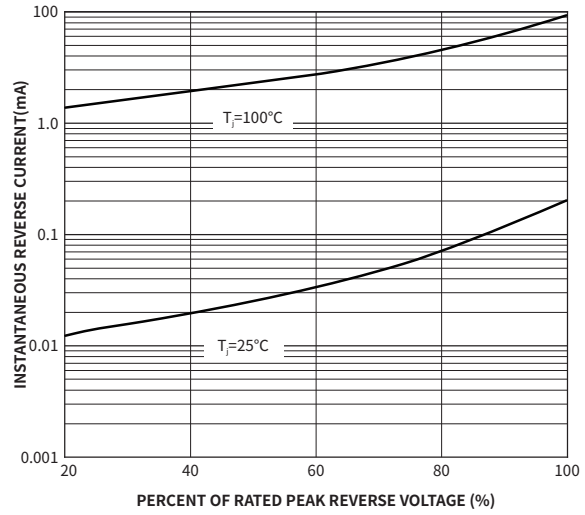
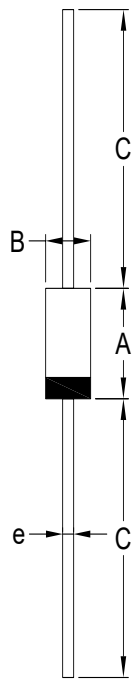


Fig.4 Typical Reverse Characteristics

Ordering Information

PACKAGE	UNIT WEIGHT(g)	BOX(pcs)	CARTON(pcs)
A-405	0.227	5000	50000

Package Outline Dimensions (A-405)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.200	5.200	0.166	0.205
B	2.000	2.700	0.080	0.107
C	25.400	-	1.000	-
e	0.530	0.640	0.021	0.025