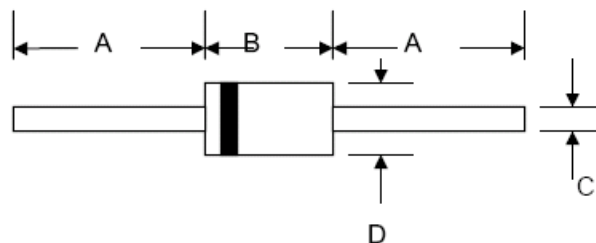


Technical Data

Data Sheet N0014, Rev. -

Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

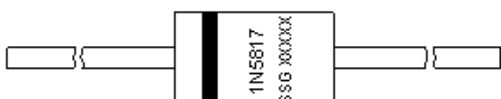


DO-41				
Dim	Min	Max	Min	Max
A	25.4	—	1.000	—
B	4.06	5.21	0.159	0.205
C	0.71	0.864	0.028	0.034
D	2.00	2.72	0.079	0.107
	In mm		In inch	

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

Marking Diagram:



Where XXXXX is YYWWL

- 1N5817 = Part Name
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
1N5817-1N5819	DO-41 (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.



Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N5817	1N5818	1N5819	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	20	30	40	V
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	V
Average Rectified Output Current (Note 1) @ $T_L = 90^{\circ}\text{C}$	I _o	1.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	25			A
Forward Voltage @ $I_F = 1.0\text{A}$ @ $I_F = 3.0\text{A}$	V _{FM}	0.450 0.750	0.550 0.875	0.60 0.90	V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^{\circ}\text{C}$ @ $T_A = 100^{\circ}\text{C}$	I _{RM}	1.0 10			mA
Typical Junction Capacitance (Note 2)	C _j	110			pF
Typical Thermal Resistance Junction to Lead (Note 1)	R _{θJL}	60			K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150			°C

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

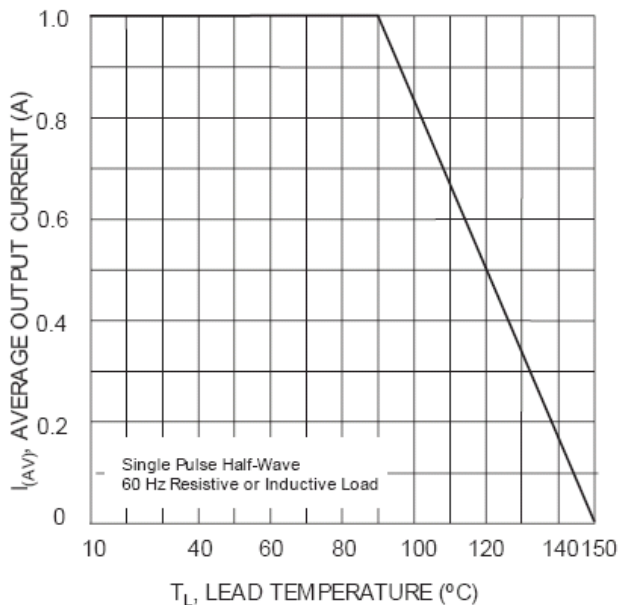


Fig. 1 Forward Current Derating Curve

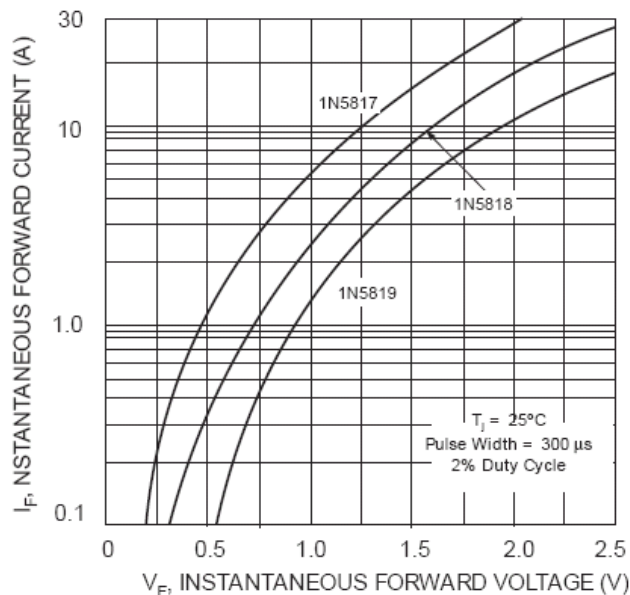


Fig. 2 Typical Forward Characteristics

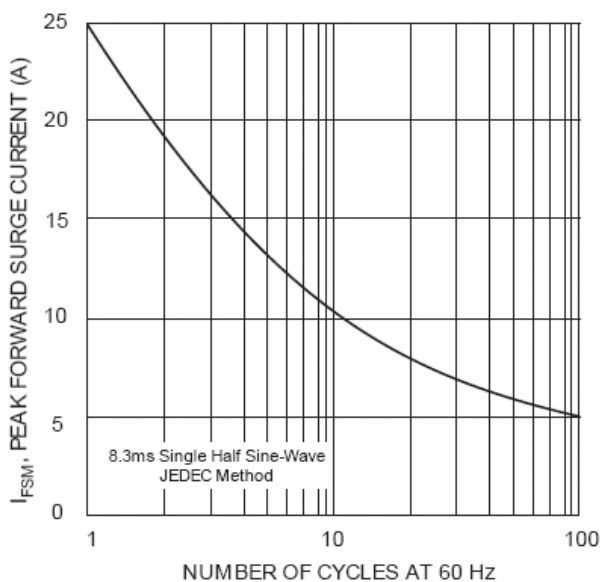


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

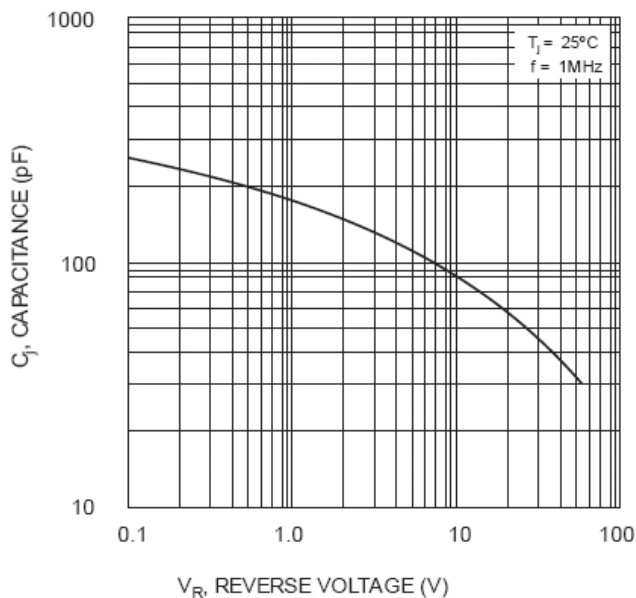


Fig. 4 Typical Junction Capacitance



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