

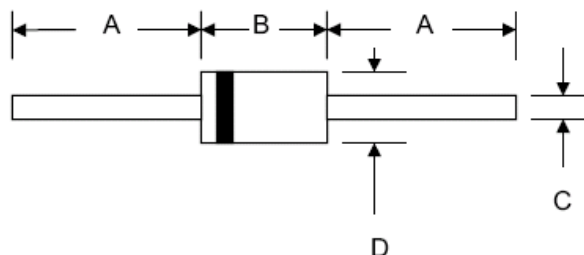


Technical Data
Data Sheet N0442, Rev. -

Green Products

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



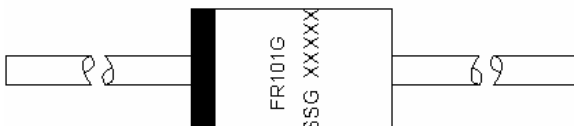
Mechanical Data

- 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

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	

Marking Diagram:

Where XXXXX is YYWWL



- FR101G = Part Name
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

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

Ordering Information

Device	Package	Shipping
FR101G-FR107G	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	FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A = 55^{\circ}\text{C}$	Io	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							A
Forward Voltage @ $I_F = 1.0\text{A}$	VFM	1.3							V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^{\circ}\text{C}$	IRM	5.0 100							μA
Reverse Recovery Time (Note 2)	trr	150				250	500		nS
Typical Junction Capacitance (Note 3)	Cj	15							pF
Operating Temperature Range	Tj	-65 to +150							$^{\circ}\text{C}$
Storage Temperature Range	TSTG	-65 to +150							$^{\circ}\text{C}$

***Glass passivated forms are available upon request**

- Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
2. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$. See figure 5.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

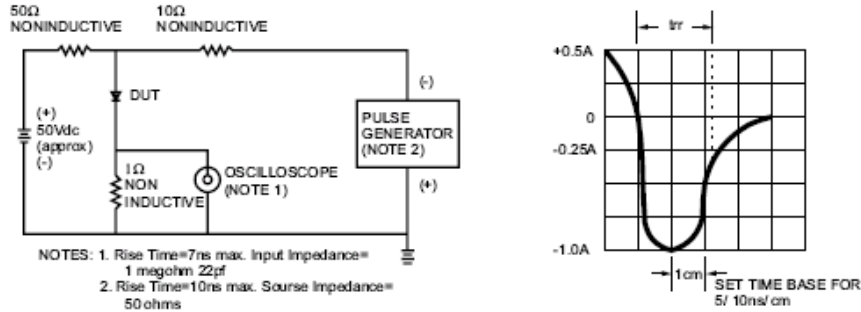


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

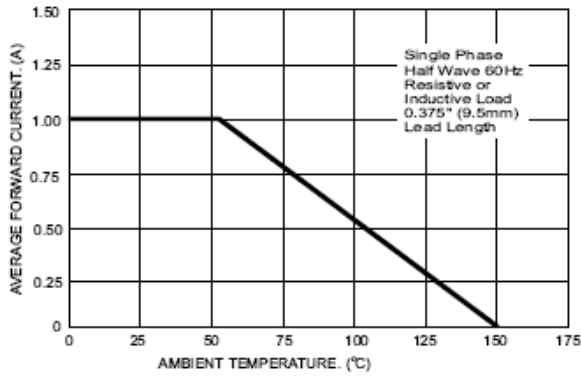


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

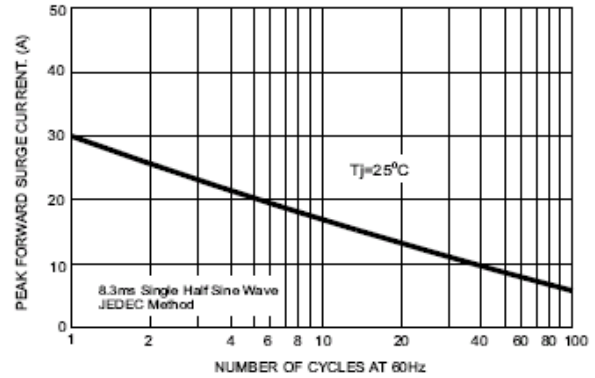


FIG.4- TYPICAL JUNCTION CAPACITANCE

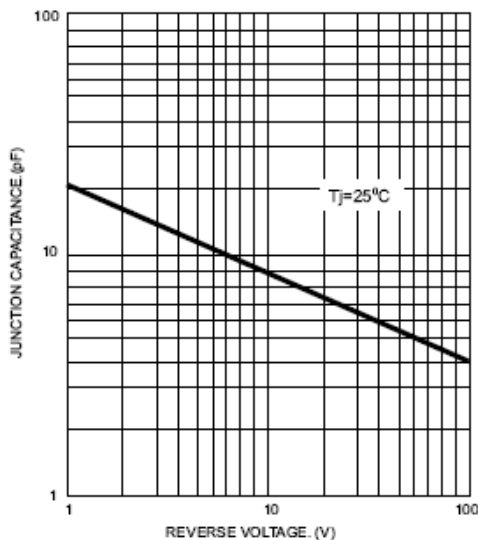
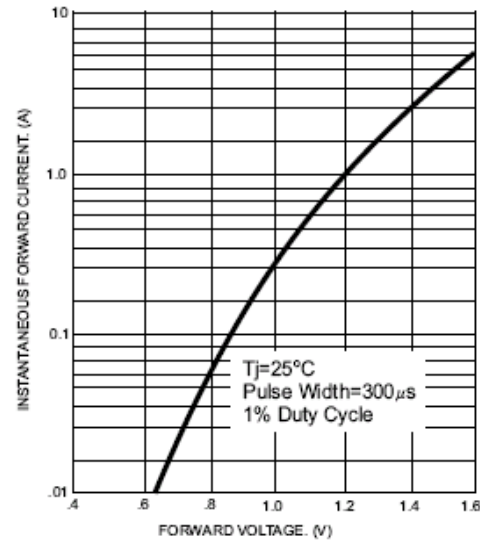


FIG.5- TYPICAL FORWARD CHARACTERISTICS





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