Technical Data *Green Products*
Data Sheet N1714, Rev. -

SF41G-SF48G SUPER FAST RECTIFIER

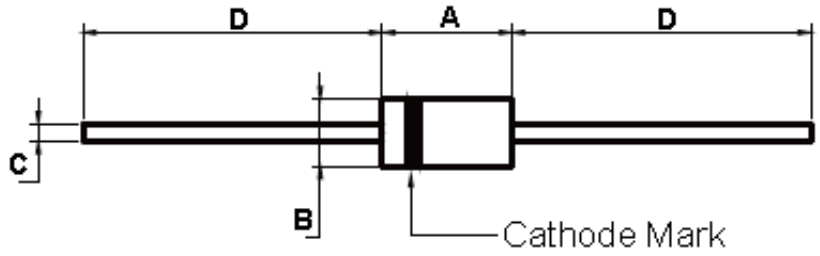
Features:

- **Super fast switching for high efficiency**
- **Low leakage current**
- **High forward surge capability**
- **Solder dip 260 °C, 40 s**
- **Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC**
- **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: JEDEC DO-201AD molded plastic body**
- **Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026**
- **Polarity: Color band denotes cathode end**
- **Mounting Position: Any**
- **Weight: 1.1 grams**

Mechanical Dimensions: In Inches/mm



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.335	0.374	8.50	9.50	
B	0.197	0.220	5.00	5.60	Φ
C	0.048	0.052	1.20	1.30	Φ
D	0.906	——	23.0	——	

DO-201AD

SF41G-SF48G

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Marking Diagram:

Where XXXXX is YYWWL



SF41G = Part Name
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information

Device	Package	Shipping
SF41G-SF48G	DO-201AD(Pb-Free)	1000pcs / box

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

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Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	SF41G	SF42G	SF43G	SF44G	SF45G	SF46G	SF48G	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at T_A=55℃	$I_{(AV)}$	4.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0							A
Maximum instantaneous forward voltage at 4.0A	V_F	0.95				1.25		1.7	V
Maximum DC reverse current T_A=25 ℃ at rated DC blocking voltage T_A=100 ℃	I_R	5.0 50.0							μA
Maximum Reverse Recovery Time (Note 1)	Trr	35							ns
Typical Junction Capacitance (Note 2)	C_J	100.0				50.0			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	30.0							°C/W
Junction Temperature	T_J	-65 to +150							°C
Storage Temperature Range	T_{STG}	-65 to +150							°C

Note: 1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

FIG. 1- FORWARD CURRENT DERATING CURVE

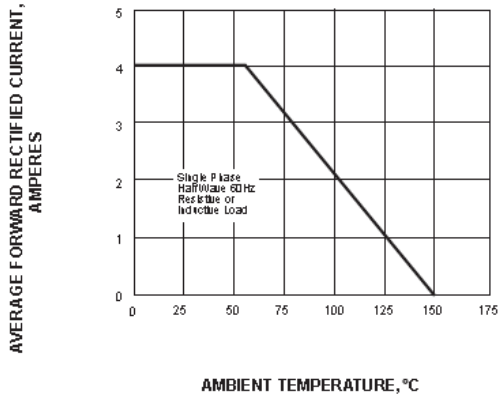


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

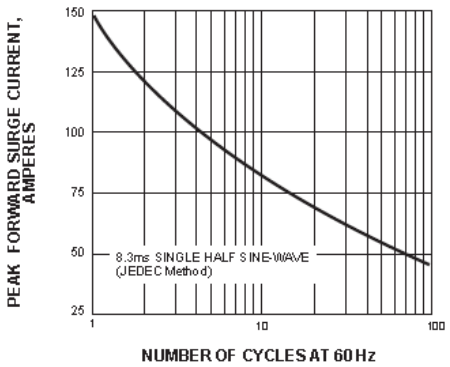


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

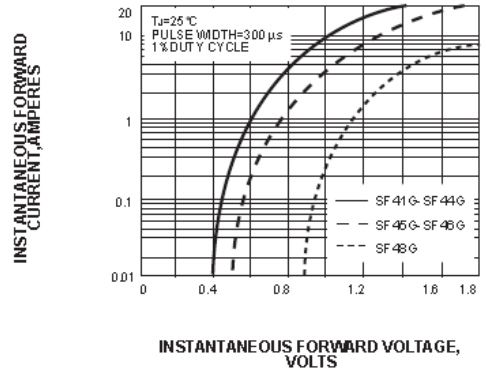
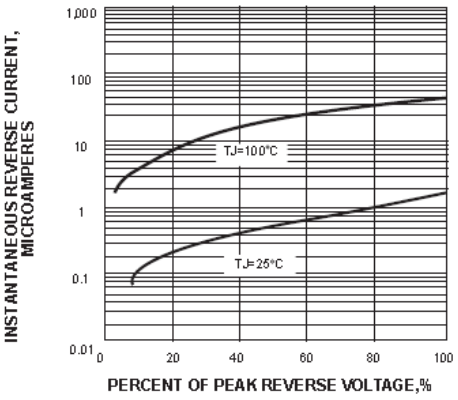


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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