

Super Fast Surface Mount Rectifiers
DO-204AL(DO-41)

Features

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020
LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874


Primary characteristics

$I_{F(AV)}$	1A
V_{RRM}	50 to 1000V
I_{FSM}	30A
I_{RM}	5 μ A
V_{FM} at $I_F=1A$	0.95/1.3/1.7
T_J max.	150 °C

Applications

Ideal for ac-to-dc bridge full wave rectification such as SMPS, home appliances, office equipment, industrial automation applications

Mechanical data

- DO-204AL(DO-41)
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque: 10cm \cdot kg(8.8 inches \cdot lbs)max.
- Recommended Torque: 5.7 cm \cdot kg(5 inches \cdot lbs)

Maximum rating (Ta=25°C unless otherwise noted)

Parameter	Sym	DO-204AL(DO-41)									Unit
		SF11	SF12	SF13	SF14	SF15	SF16	SF17	SF18	SF19	
Max. repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	800	1000	V
Max. RMS reverse voltage	V_{RMS}	35	70	105	140	210	280	420	560	700	V
Max. DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	800	1000	V
Max. average forward current	$I_{F(AV)}$	1									A
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	30									A
Max. instantaneous forward voltage drop per diode	V_{FM}	0.95			1.3		1.7			V	
Max. instantaneous reverse current at rated DC blocking voltage	I_{RM}	5									μ A
		100									
Operating junction temperature	T_J	-55 ~ +150									°C
Storage temperature	T_{STG}	-55 ~ +150									°C
Maximum reverse recovery time (Note1)	t_{rr}	35									nS
Typical thermal resistance	R_{J-A}	60									°C/W
	R_{J-L}	20									°C/W

Notes:

1 Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $IRR=0.25A$

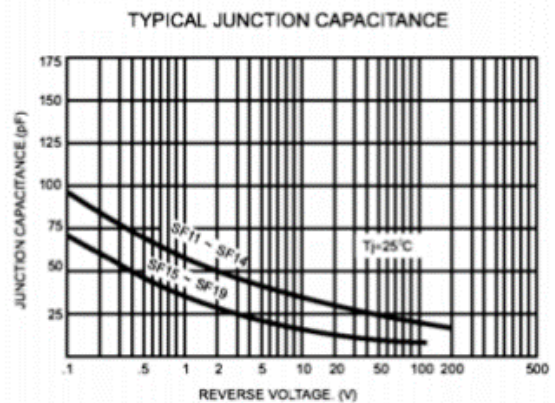
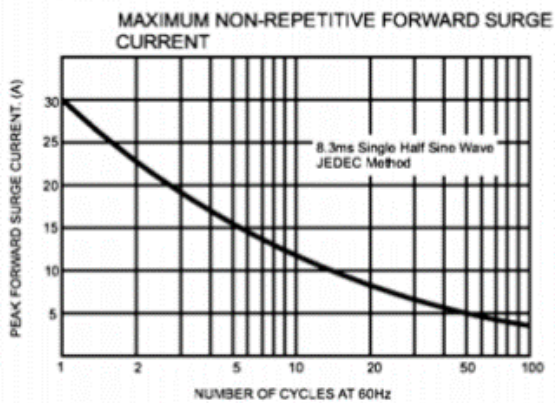
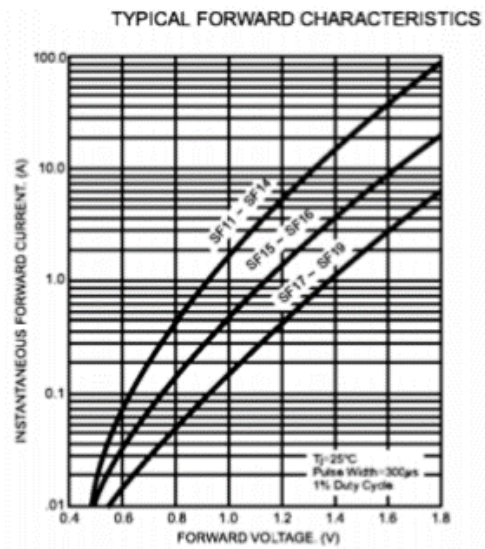
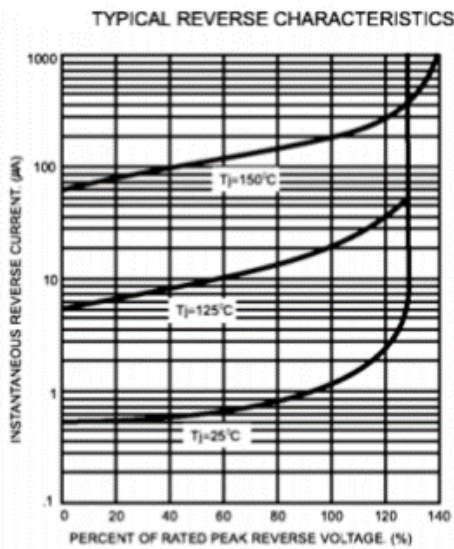


SF11 thru SF19. Super Fast Surface Mount Rectifiers

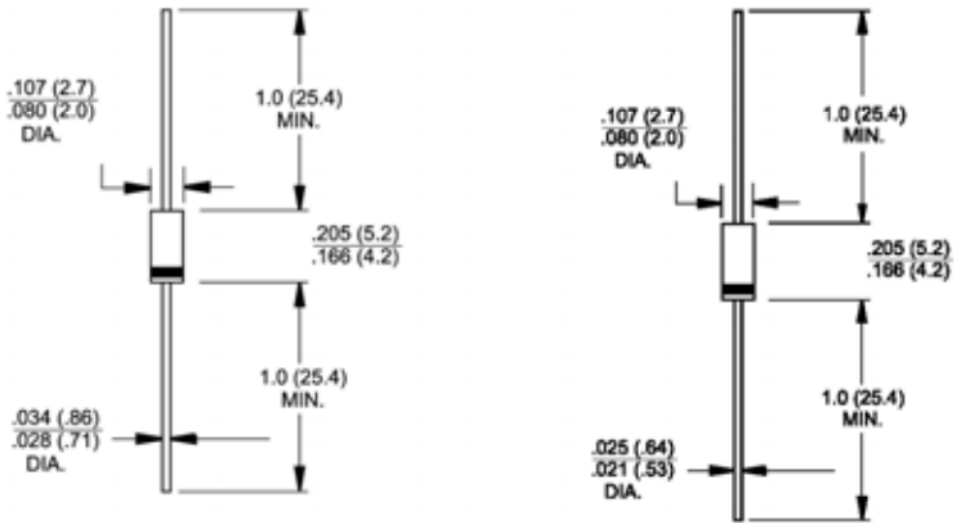
Ordering information (Example)

PREFERRED	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
SF11				

Typical characteristics



Package outline dimensions



Dimensions in inches and (millimeters) Dimensions in inches and (millimeters)

Note: Lead diameter is 0.025(0.64)/0.021(0.53) for suffix "S" part numbers

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