



THE DATASHEET OF SF65-AP





Micro Commercial Components



Micro Commercial Components
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SF61 THRU SF66

6.0 Amp Super Fast Rectifier 50 to 400 Volts

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
Halogen free available upon request by adding suffix "-HF"
High current capability, High reliability
Low forward voltage drop
High surge current capability

Maximum Ratings

Operating Temperature: -65 to +125

Storage Temperature: -65 to +150

For capacitive load, derate current by 20%

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF61	50	35	50
SF62	100	70	100
SF63	150	105	150
SF64	200	140	200
SF65	300	210	300
SF66	400	280	400

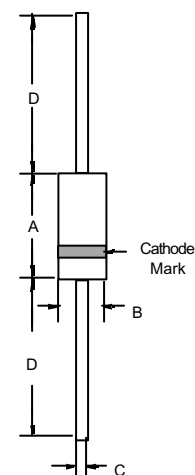
Electrical Characteristics @ 25 C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	6.0A	$T_C = 55$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SF61-SF64 SF65-SF66	V_F	0.975V 1.3V	$I_{FM} = 6.0A;$ $T_C = 25$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0uA 50uA	$T_C = 25$ $T_C = 100$
Typical Junction Capacitance SF61-SF64 SF65-SF66	C_J	120pF 60pF	Measured at 1.0MHz, $V_R=4.0V$
Maximum Reverse Recovery Time	T_{RR}	35nS	$I_F=0.5A, I_R=1.0A,$ $I_{RR}=0.25A$

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

2. Pulse Test: Pulse width 300 usec, Duty cycle 1%.

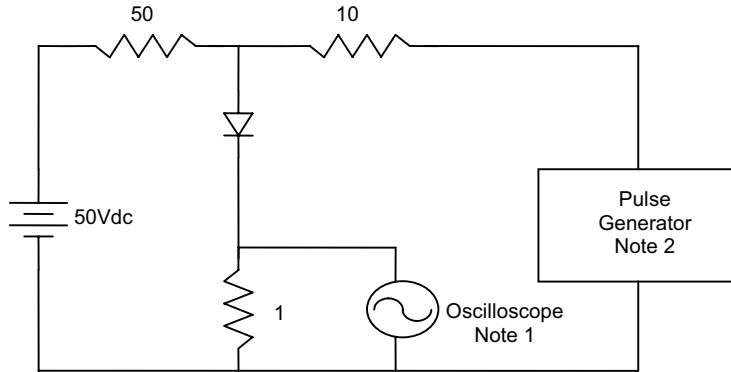
DO-201AD



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.370	---	9.50	
B	---	.250	---	6.40	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

SF61 thru SF66

Figure 1
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
 2. Rise Time = 10ns max.
Source impedance = 50 ohms
 3. Resistors are non-inductive

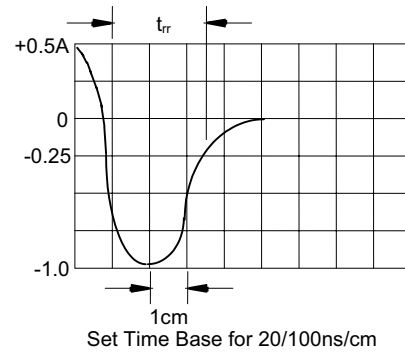


Figure 2
Forward Derating Curve

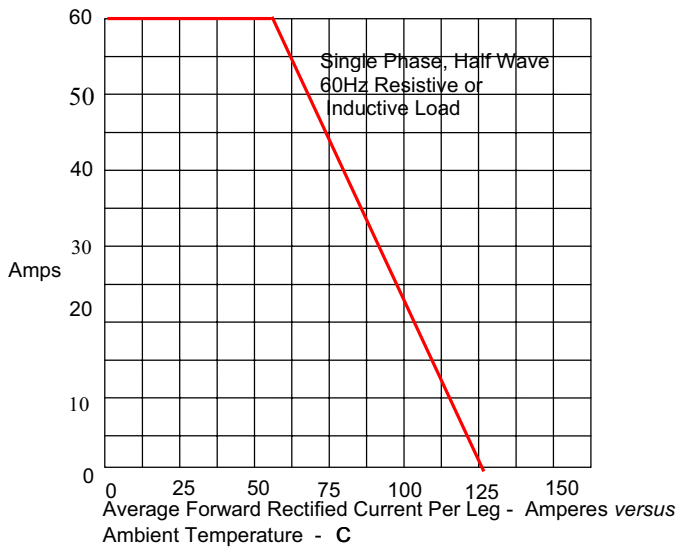
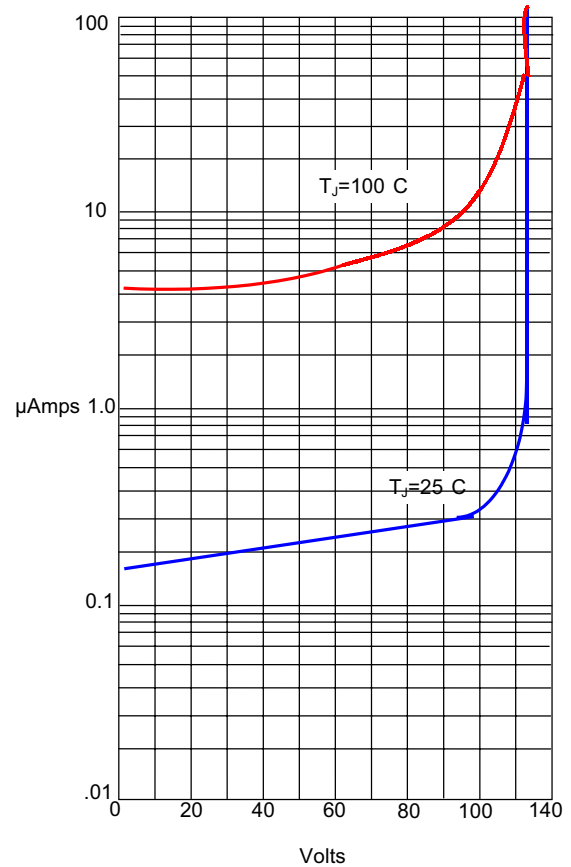


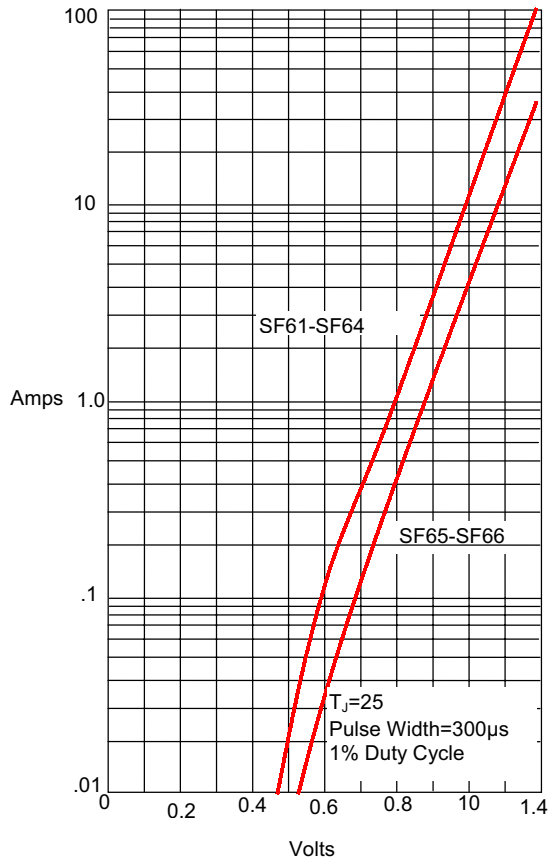
Figure 3
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current -MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

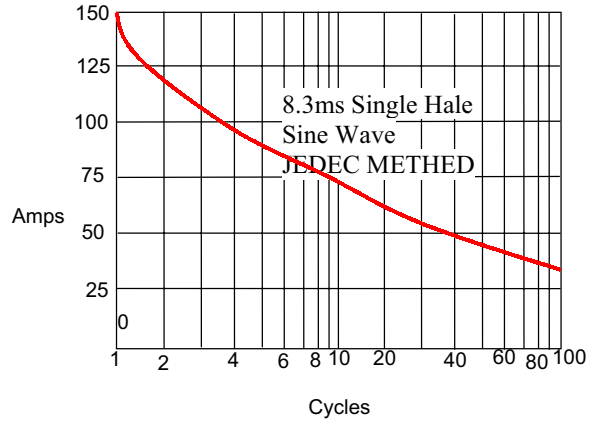
SF61 thru SF66

Figure 4
Typical Forward Characteristics



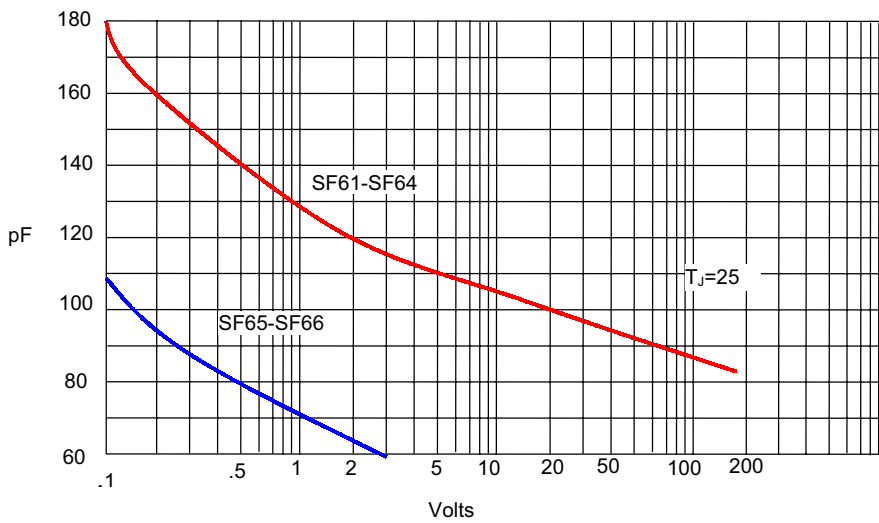
Instantaneous Forward Current - Amperes versus Forward Voltage - Volts

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

Figure 6
Typical Junction Capacitance



Junction Capacitance - pF Reverse Voltage - Volts



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 1.2Kpcs/Reel
Part Number-AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number-BP	Bulk: 12Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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