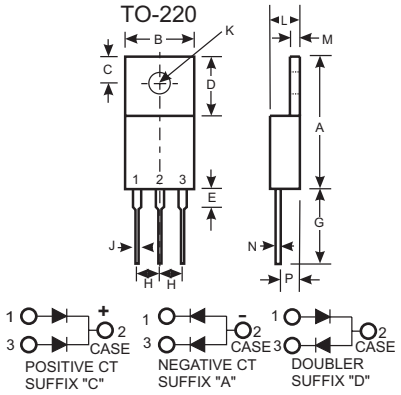
SF161 - SF164

16A SUPER-FAST RECOVERY RECTIFIER

Features

NOT RECOMMENDED FOR NEW DESIGN

- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- Super-fast Switching Speed < 35ns
- Plastic Material - UL Flammability Rating 94V-0
- Good for 200KHz Power Supplier



TO-220AB		
Dim	**Min**	**Max**
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	—	6.35
G	12.70	14.73
H	2.29	2.79
J	0.51	1.14
K	3.53Ø	4.09Ø
L	3.56	4.83
M	1.14	1.40
N	0.30	0.64
P	2.03	2.92
Q	4.83	5.33
All Dimensions in mm		

Mechanical Data

- Case: Molded Plastic
- Terminals: Finish - Sn96.5Ag3.5. Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Denotes Cathode
- Approx. Weight: 2.24 grams
- Mounting Position: Any

Maximum Ratings and Electrical Characteristics

Ratings at 25° C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	SF161	SF162	SF163	SF164	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	V
Maximum Average Forward Rectified Current Total Package @ T_C = 125°C	$I_{(AV)}$	16				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125				A
Maximum Instantaneous Forward Voltage at 8.0A DC per leg	V_F	0.975				V
Maximum DC Reverse Current @ T_A = 25°C at Rated DC Blocking Voltage @ T_A = 100°C	I_R	10 150				µA
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	2				K/W
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35				ns
Typical Junction Capacitance (Note 2)	C_J	75				pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175				°C

Notes:
1. Reverse Recovery Test Conditions: IF =0.5 A, IR =1.0 A, IRR=0.25A.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V.
3. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied where applicable, see *EU Directive Annex Notes 5 and 7.*

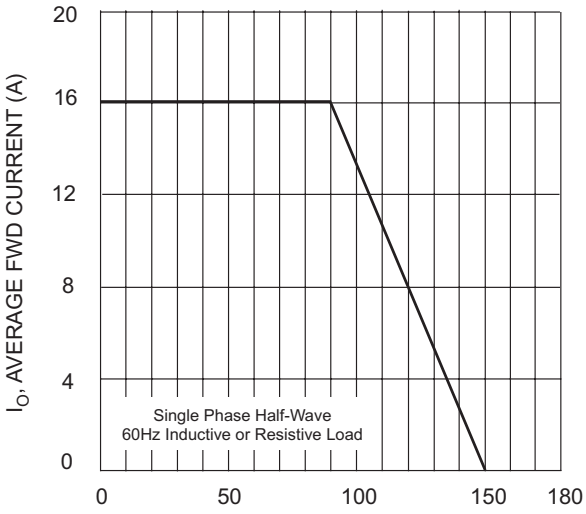


Fig. 1, Forward Current Derating Curve

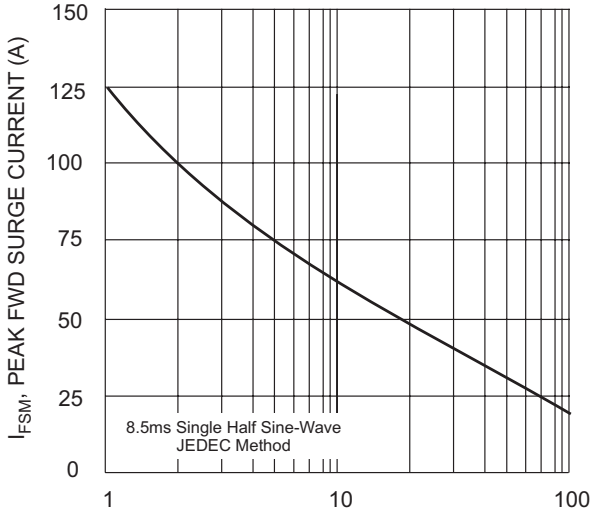


Fig. 2, Maximum Non-Repetitive Surge Current

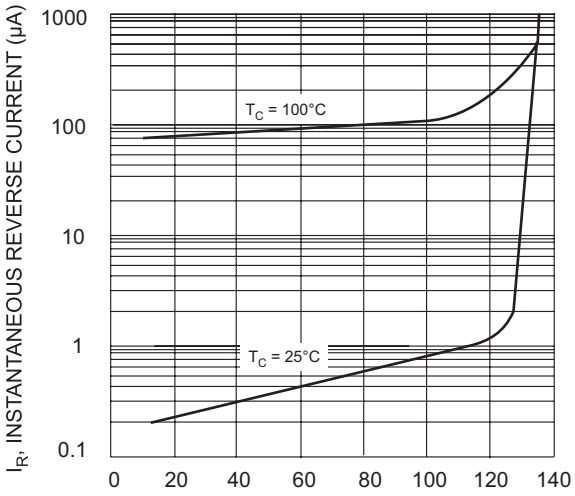


Fig. 3, Typical Reverse Characteristics

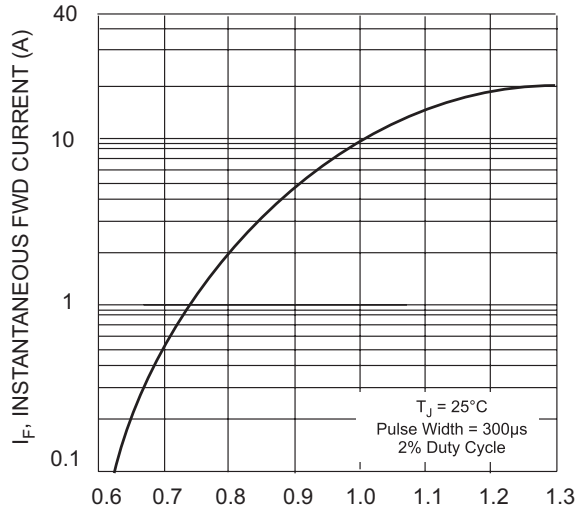


Fig. 4, Typ. Instantaneous Fwd Characteristics

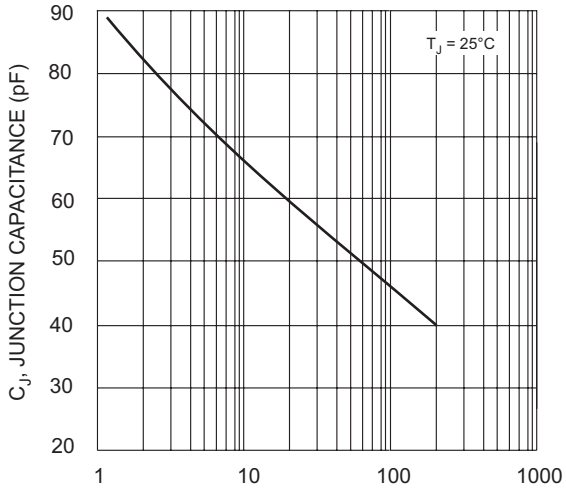


Fig. 5, Typical Junction Capacitance

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