



Micro Commercial Components

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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

FR151S THRU FR157S

Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- Fast Switching Speed For High Efficiency
- High Current Capability
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

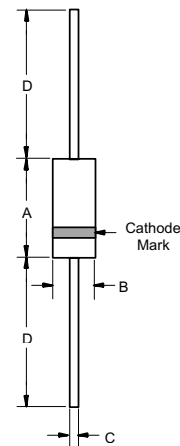
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FR151S	FR151S	50V	35V	50V
FR152S	FR152S	100V	70V	100V
FR153S	FR153S	200V	140V	200V
FR154S	FR154S	400V	280V	400V
FR155S	FR155S	600V	420V	600V
FR156S	FR156S	800V	560V	800V
FR157S	FR157S	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.5 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	$I_{FM} = 1.5\text{A}; T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0µA 100µA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Maximum Reverse Recovery Time	T_{rr}	150ns 250ns 500ns	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$
Typical Junction Capacitance	C_J	20pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

1.5 Amp Fast Recovery Rectifier 50 to 1000 Volts

DO-41



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

*Pulse Test: Pulse Width 300µsec, Duty Cycle 1%

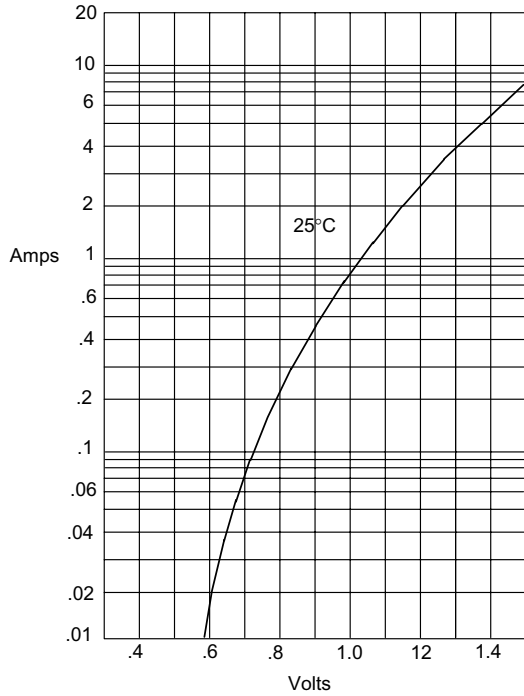
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

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FR151S thru FR157S

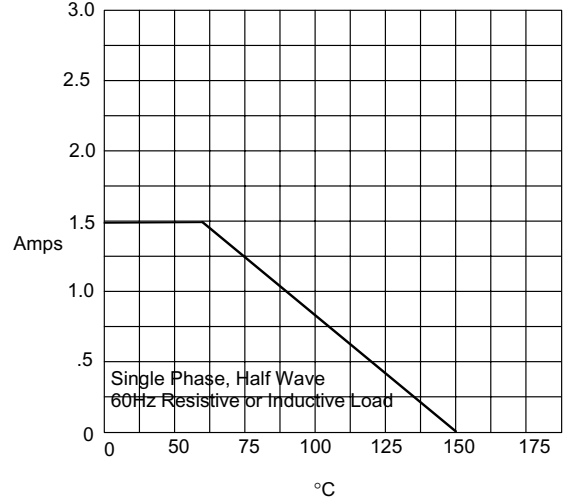


Figure 1
Typical Forward Characteristics



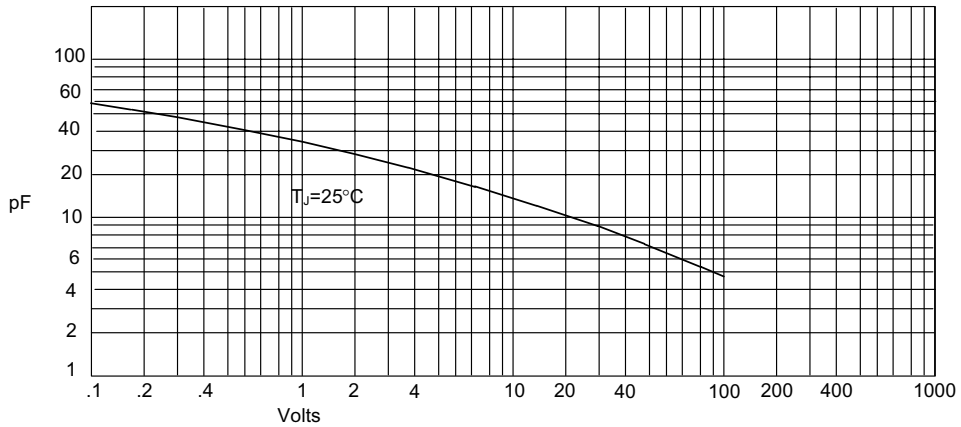
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

FR151S thru FR157S

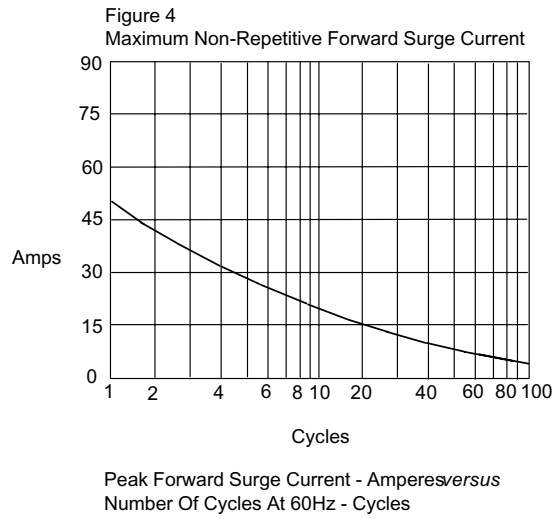
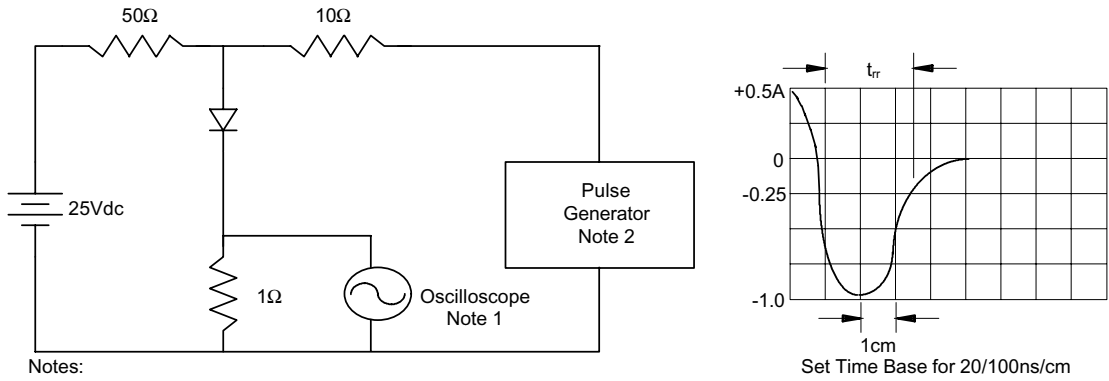


Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram





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Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel; 5Kpcs/Reel
(Part Number)-AP	Ammo Packing;5Kpcs/AmmoBox
(Part Number)-BP	Bulk;1Kpcs/Box

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