



Micro Commercial Components

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-54151736
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

FR151 THRU FR157

Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- High Current Capability
- Fast Switching Speed For High Efficiency

1.5 Amp Fast Recovery Rectifier 50 to 1000 Volts

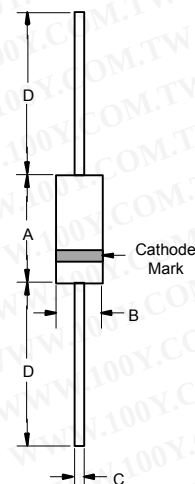
Maximum Ratings

- 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
FR151	FR151	50V	35V	50V
FR152	FR152	100V	70V	100V
FR153	FR153	200V	140V	200V
FR154	FR154	400V	280V	400V
FR155	FR155	600V	420V	600V
FR156	FR156	800V	560V	800V
FR157	FR157	1000V	700V	1000V

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

DO-15



Electrical Characteristics @ 25°C Unless Otherwise Specified

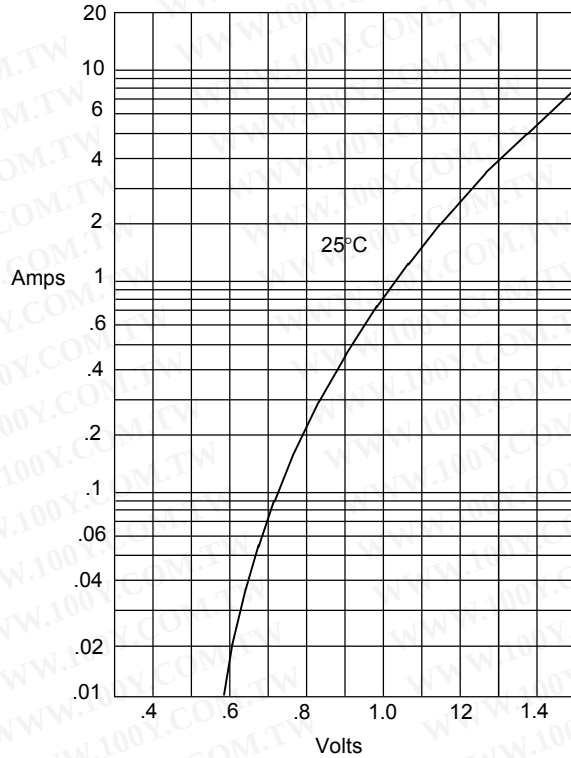
Average Forward Current	$I_{F(AV)}$	1.5 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	$I_{FM} = 1.5A$; $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0 μ A 100 μ A	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Maximum Reverse Recovery Time FR151-154 FR155 FR156-157	T_{rr}	150ns 250ns 500ns	$I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$
Typical Junction Capacitance	C_J	20pF	Measured at 1.0MHz, $V_R=4.0V$

*Pulse Test: Pulse Width 300 μ sec, Duty Cycle 1%

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.230	.300	5.80	7.60	
B	.104	.140	2.60	3.60	
C	.026	.034	.70	.90	
D	1.000	---	25.40	---	

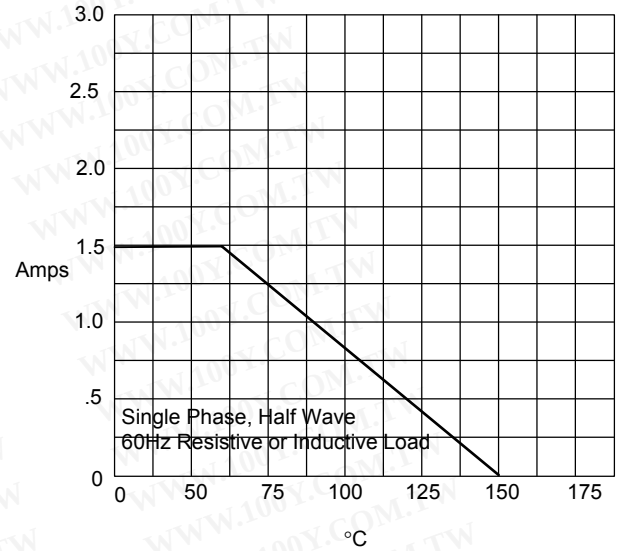
FR151 thru FR157

Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

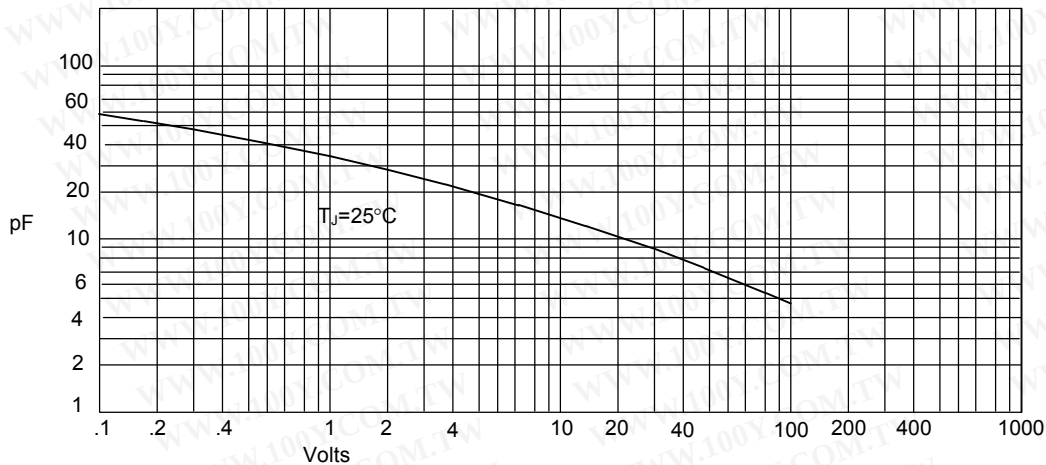
Figure 2
Forward Derating Curve



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

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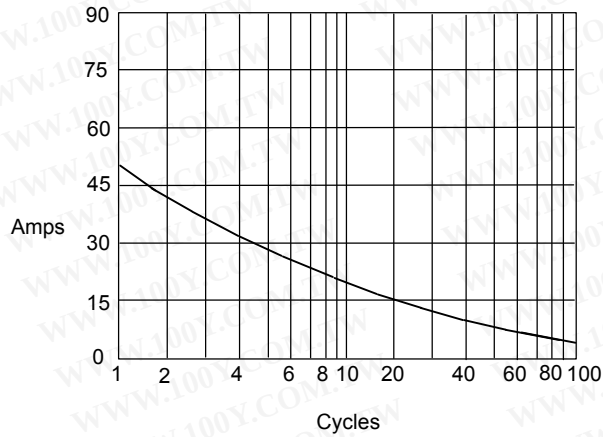
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

FR151 thru FR157

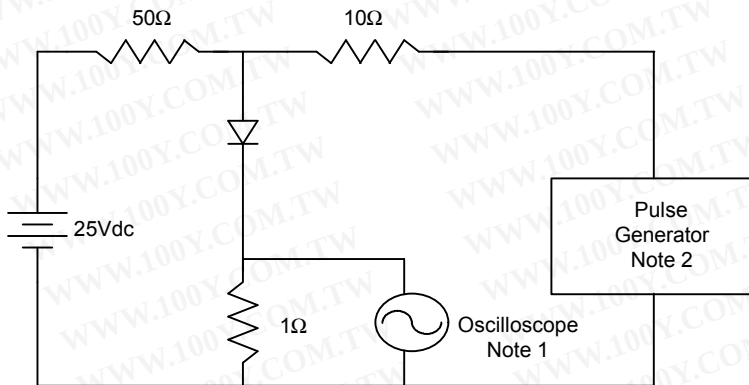
Figure 4
Maximum Non-Repetitive Forward Surge Current



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

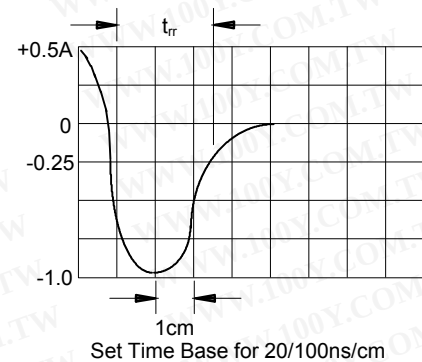
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Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram



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





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Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;4Kpcs/Reel
(Part Number)-BP	Bulk;500pcs/Box

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