# NOT RECOMMENDED FOR NEW DESIGNS USE FR2A-LTP~FR2M-LTP SERIES



**Micro Commercial Components** 



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Phone: (818) 701-4933 Fax: (818) 701-4939 FR2A THRU FR2M

### **Features**

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Superfast Recovery Times For High Efficiency

## Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 15°C/W Junction To Lead

MCC	Device	Maximum	Maximum	Maximum
Catalog	Marking	Recurrent	RMS	DC
Number		Peak Reverse	Voltage	Blocking
		Voltage	_	Voltage
FR2A	FR2A	50V	35V	50V
FR2B	FR2B	100V	70V	100V
FR2D	FR2D	200V	140V	200V
FR2G	FR2G	400V	280V	400V
FR2J	FR2J	600V	420V	600V
FR2K	FR2K	800V	560V	800V
FR2M	FR2M	1000V	700V	1000V

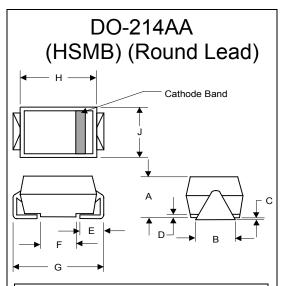
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward current	I <sub>F(AV)</sub>	2.0A	T <sub>A</sub> = 90°C
Peak Forward Surge Current	I <sub>FSM</sub>	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_{F}$	1.30V	I <sub>FM</sub> = 2.0A; T <sub>J</sub> = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5μΑ 200μΑ	T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C
Maximum Reverse Recovery Time FR2A-G FR2J FR2K-M	T <sub>rr</sub>	150ns 250ns 500ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A
Typical Junction Capacitance	С	40pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

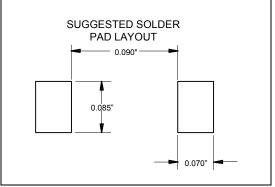
<sup>\*</sup>Pulse test: Pulse width 300 usec, Duty cycle 1%

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

## 2 Amp Fast Recovery Silicon Rectifier 50 to 1000 Volts



DIMENSIONS						
	INCHES		MM			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.078	.116	1.98	2.95		
В	.075	.089	1.90	2.25		
С	.002	.008	.05	.20		
D		.02		.51		
Е	.035	.055	.90	1.40		
F	.065	.091	1.65	2.32		
G	.205	.224	5.21	5.69		
Н	.160	.180	4.06	4.57		
.1	130	155	3.30	3.94		

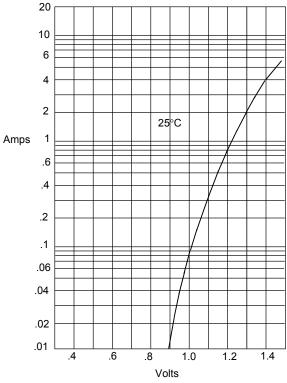


## FR2A thru FR2M

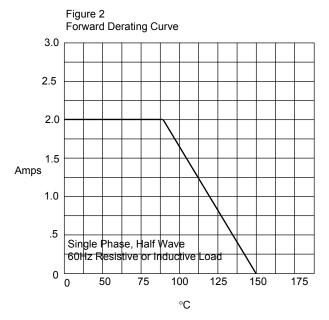


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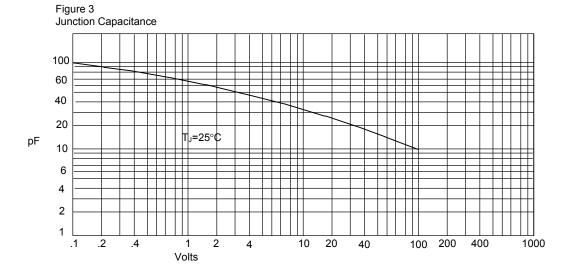
Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes*versus* Instantaneous Forward Voltage - Volts



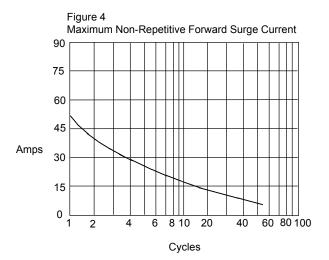
Average Forward Rectified Current - Amperes*versus* Ambient Temperature -°C



Junction Capacitance - pF*versus* Reverse Voltage - Volts

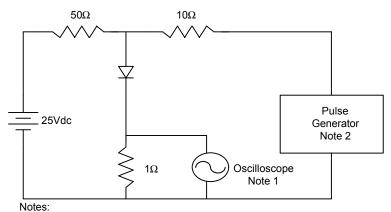
## FR2A thru FR2M

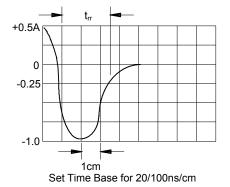




Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles

Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram





1. Rise Time = 7ns max.

Input impedance = 1 megohm, 22pF

2. Rise Time = 10ns max.

Source impedance = 50 ohms

3. Resistors are non-inductive



### **Ordering Information:**

Device	Packing	
Part Number-TP	Tape&Reel: 3Kpcs/Reel	

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FR2G-LTP FR2J-LTP FR2M-LTP FR2A-LTP FR2B-LTP FR2D-LTP FR2K-LTP