

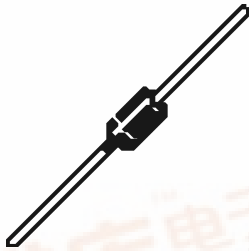


Data Sheet

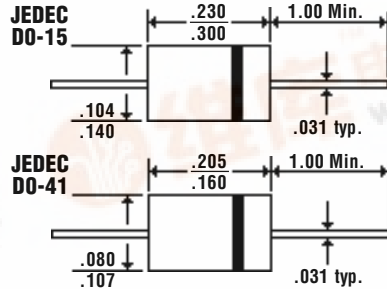
**HIGH VOLTAGE, FAST RECOVERY
MINIATURE PLASTIC RECTIFIERS**

FR02 & FR05 Series

Description



Mechanical Dimensions



Features

- DESIGNED FOR PHOTO FLASH APPLICATIONS
- BEVELED ROUND CHIP, AVALANCHE OPERATION
- LOW COST
- MEETS UL SPECIFICATION 94V-0

Electrical Characteristics @ 25°C.	FR02 & FR05 Series			Units	
Maximum Ratings	FR02 (25-30)	FR02 (35-40)	FR05 (45-60)	FR05	Units
Average Forward Rectified Current... I_o @ $T_A = 55^\circ\text{C}$	0.2	0.2	0.2	0.5	Amps
Non-Repetitive Peak Forward Surge Current... I_{FSM} @ Rated Load Conditions, 8.3 mS, 1/2 Sine Wave				30	Amps
Forward Voltage... V_F @ $I_F = 0.2$ Amps (FR02) @ $I_F = 0.5$ Amps (FR05)	6.0	8.0	12.0	2.0	Volts
DC Reverse Current... I_R				5.0	μAmps
Typical Reverse Recovery Time... T_{RR}				500	nS
Typical Junction Capacitance... C_j	6.0	6.0	4.0	9.0	pF
Operating Temperature Range... T_J	-65 to 125				°C
Storage Temperature Range... T_{STRG}	-65 to 150				°C
Maximum Peak Inverse Voltage...	Type	Package	V_{RM}		Units
	FR05-10	DO-41	1000		Volts
	FR05-15	DO-41	1500		Volts
	FR05-16	DO-41	1600		Volts
	FR05-18	DO-41	1800		Volts
	FR05-20	DO-41	2000		Volts
	FR02-25	DO-41	2500		Volts
	FR02-30	DO-41	3000		Volts
	FR02-35	DO-15	3500		Volts
	FR02-40	DO-15	4000		Volts
	FR02-45	DO-15	4500		Volts
	FR02-50	DO-15	5000		Volts
	FR02-60	DO-15	6000		Volts

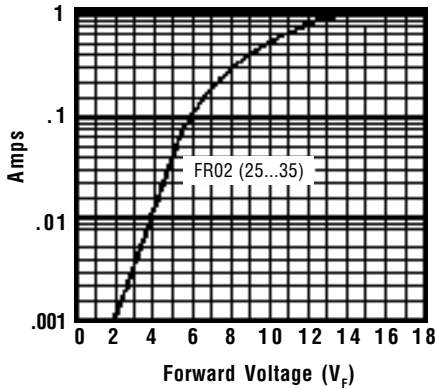




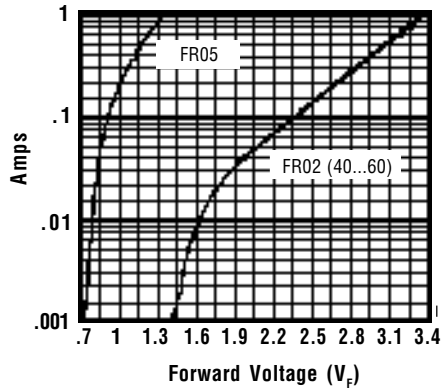
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FR02 & FR05 Series

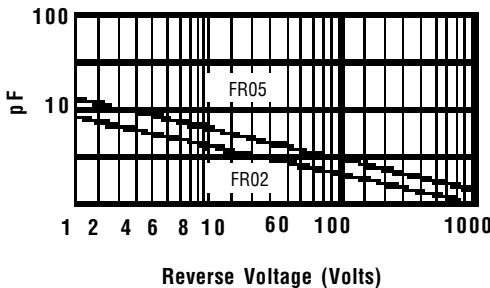
Typical Forward Characteristics



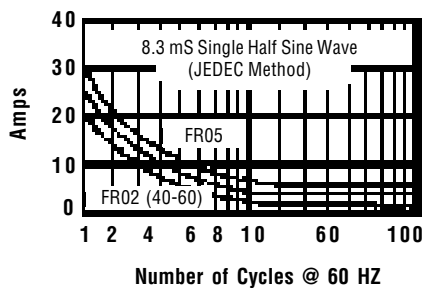
Typical Forward Characteristics



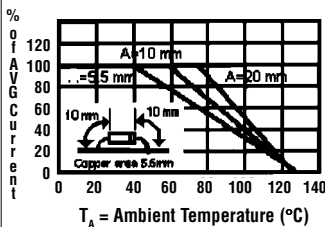
Typical Junction Capacitance



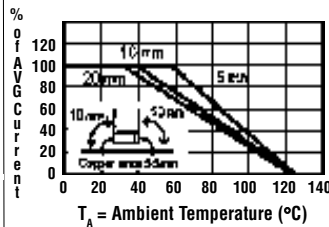
Maximum Surge Current



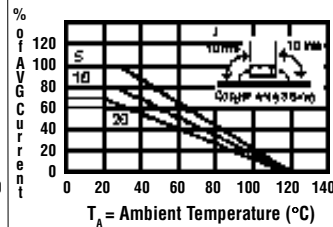
**Maximum Current Rating
Effect of Copper Area
Resistive/Inductive Load**



**Maximum Current Rating
Effect of Lead Lengths
Resistive/Inductive Load**



**Maximum Current Rating
Capacitive Load**



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 HZ Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.