

FR301 THRU FR307

FAST RECOVERY RECTIFIER



康比電子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 3.0 AMPERE

FEATURES

- High surge current capability
- Void-free Plastic in a DO-201AD package.
- Fast switching for high efficiency
- Low leakage.
- Suffix "H" indicates Halogen-free parts, ex. FR301H.

MECHANICAL DATA

Case : Molded plastic, DO-201AD

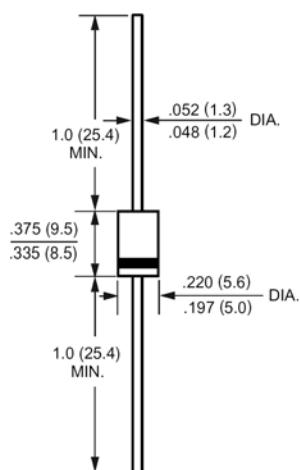
Epoxy : UL 94V-O rate flame retardant

Lead : Axial leads, solderable per MIL-STD-202,
method 208 guaranteed

Polarity : Color band denotes cathode end

Mounting position : Any

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbols	FR301	FR302	FR303	FR304	FR305	FR306	FR307	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length	I _(AV)					3.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}					200.0			Amp
Maximum Forward Voltage at 3.0A DC and 25°C	V _F				1.3				Volts
Maximum Reverse Current at T _A =25°C at Rated DC Blocking Voltage T _A =100°C	I _R				5.0	100			uAmp
Typical Junction Capacitance (Note 1)	C _J			60					pF
Typical Thermal Resistance (Note 2)	R _{θ,JA}			40.0					°C/W
Maximum Reverse Recovery Time (Note 3)	T _{RR}		150		250	500			nS
Operating and Storage Temperature Range	T _J , T _{Stg}			-65 to +150					°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted with 0.8x0.8" (20x20mm) copper pads

3- Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{RR}=.25A.

FR301 THRU FR307

FAST RECOVERY RECTIFIER



康比電子
HORNBY ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

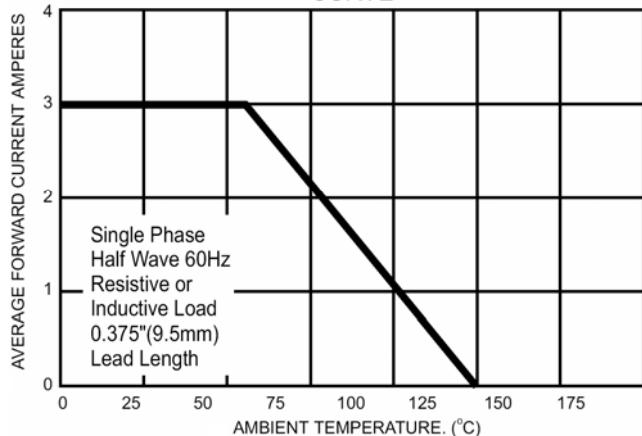


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

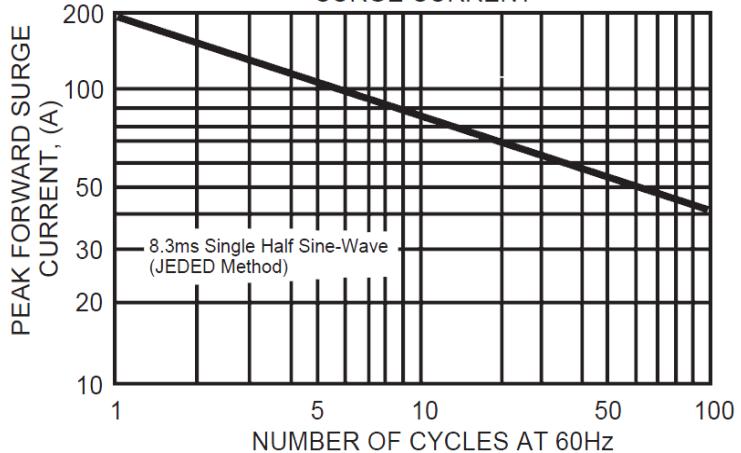


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

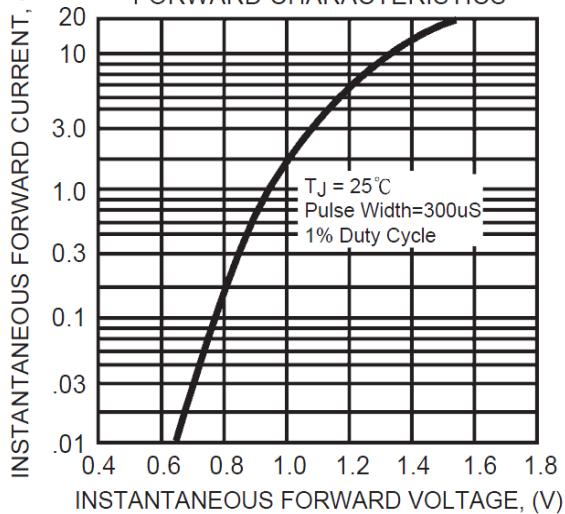


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

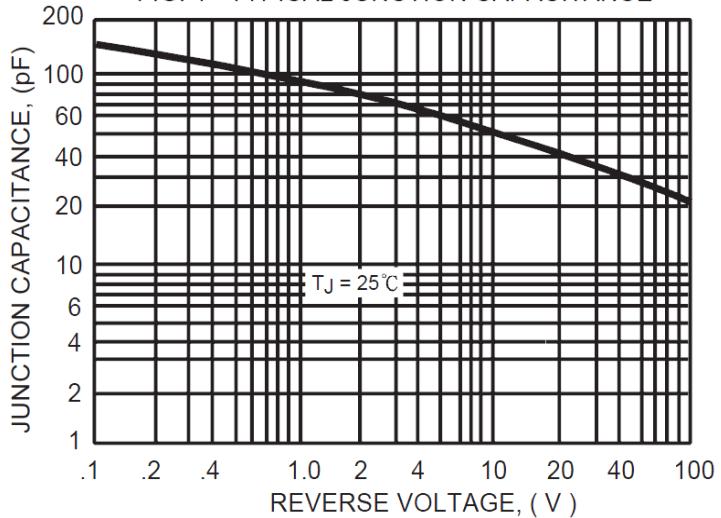


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

