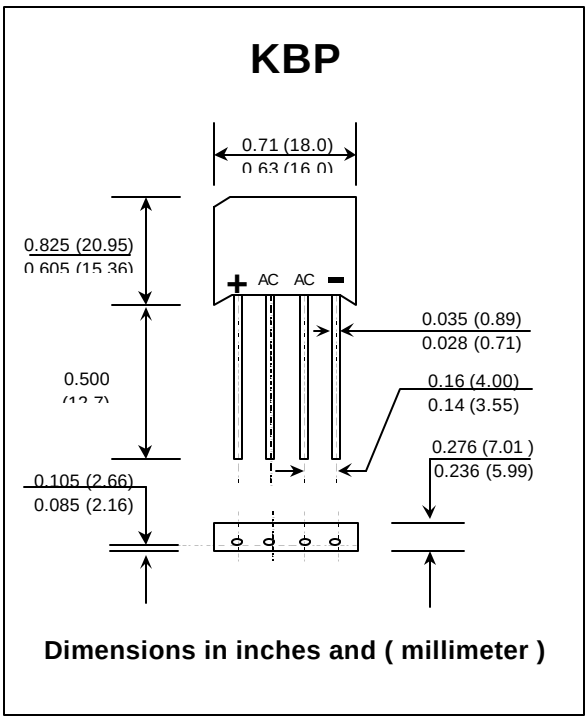
FKBP200 - FKBP210

FAST RECOVERY BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts
Io : 2.0 Amperes



FEATURES :

* High case dielectric strength of 2000 V DC
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Fast switching for high efficiency
* Ideal for printed circuit board

MECHANICAL DATA :

* Case : Reliable low cost construction utilizing molded plastic technique
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL - STD 202 , Method 208 guaranteed
* Polarity : Polarity symbols marked on case
* Mounting position : Any
* Weight : 3.4 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	FKBP 200	FKBP 201	FKBP 202	FKBP 204	FKBP 206	FKBP 208	FKBP 210	UNIT
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 Current Tc = 50 °C	$I_{F(AV)}$	2.0							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	35							Amps.
Current Squared Time at t < 8.3 ms.	I^2t	10							A^2S
Maximum Forward Voltage drop per Diode at I_F = 1.0 Am	V_F	1.3							Volts
Maximum DC Reverse Current Ta = 25 °C	I_R	10							µA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	500							µA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	500		ns
Typical Thermal Resistance (Note 2)	$R\theta JA$	30							°C/W
Operating Junction Temperature Range	T_J	- 50 to + 150							°C
Storage Temperature Range	T_{STG}	- 50 to + 150							°C

Notes :

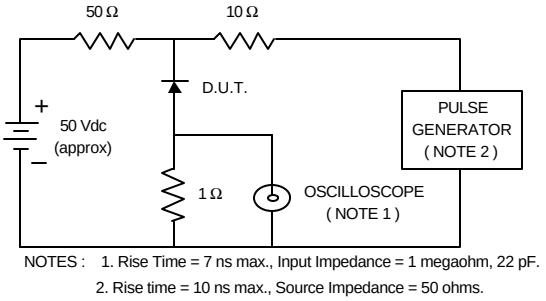
1) Measured with I_F = 0.5 Amp., I_R = 1 Amp., Irr = 0.25 Amp.

2) Thermal resistance from Junction to Ambient on P.C. Board with, 0.47" X 0.47" (12 mm. x 12 mm.) Cu. pads.

UPDATE : APRIL 21. 1998

RATING AND CHARACTERISTIC CURVES (FKBP200 - FKBP210)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

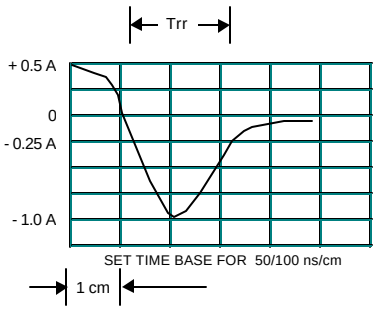


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

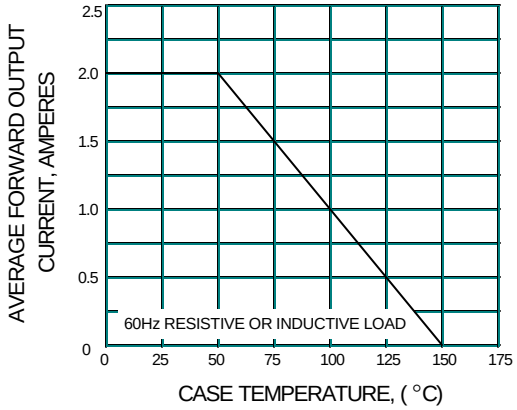


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

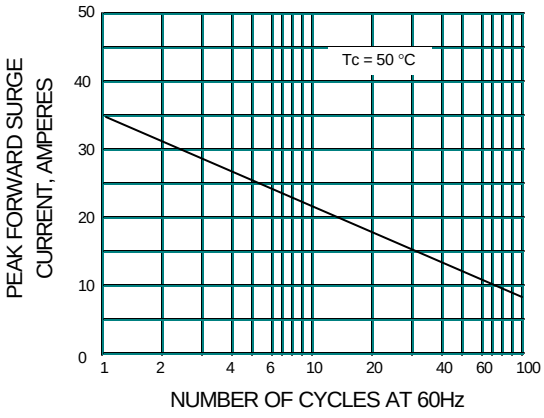


FIG.4 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

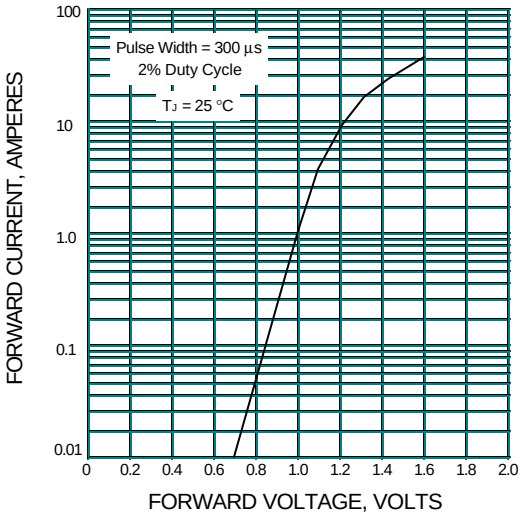


FIG.5 - TYPICAL REVERSE CHARACTERISTICS PER DIODE