



UGP20A THRU UGP20K

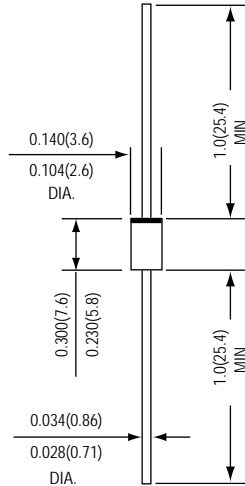
SINTERED GLASS PASSIVATED JUNCTION ULTRAFAST EFFICIENT RECTIFIER

Reverse Voltage - 50 to 800 Volts

Forward Current - 2.0 Amperes

PATENTED

DO-204AC



*Dimensions in inches and (millimeters)

SUPEREX II™



FEATURES

- * GPRC (Glass Passivated Rectifier Chip) inside
- * Glass passivated cavity-free junction
- * Ultrafast recovery time for high efficiency
- * Low forward voltage , high current capability
- * Low leakage current
- * High surge current capability
- * High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3 kg) tension
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-204AC molded plastic over glass body

Terminals : Tin Plated, solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.015 ounces , 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	UGP20						UNITS
		A	B	D	G	J	K	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I (AV)	2.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	65			60			Amps
Maximum instantaneous forward voltage at 2.0 A	VF	0.95		1.25	1.7	2.2	Volts	
Maximum DC reverse current at rated DC blocking voltage	IR	5 100						uA
Maximum reverse recovery time (NOTE 1)	trr	35						nS
Typical junction capacitance (NOTE 2)	CJ	22						pF
Typical thermal resistance (NOTE 3)	R θJA	40						°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175						°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B. mounted.

RATINGS AND CHARACTERISTIC CURVES UGP20A THRU UGP20K

FIG.1 - FORWARD CURRENT DERATING CURVE

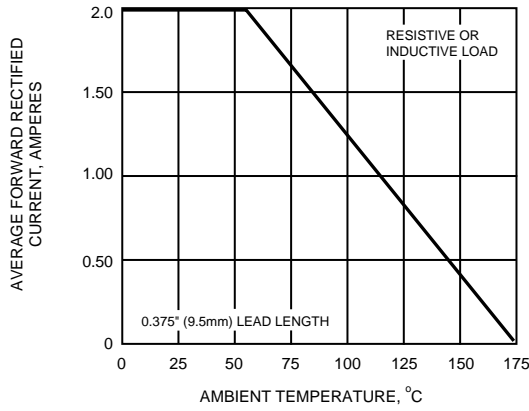


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

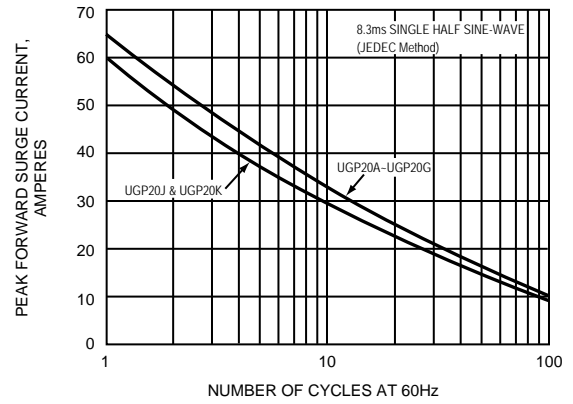


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

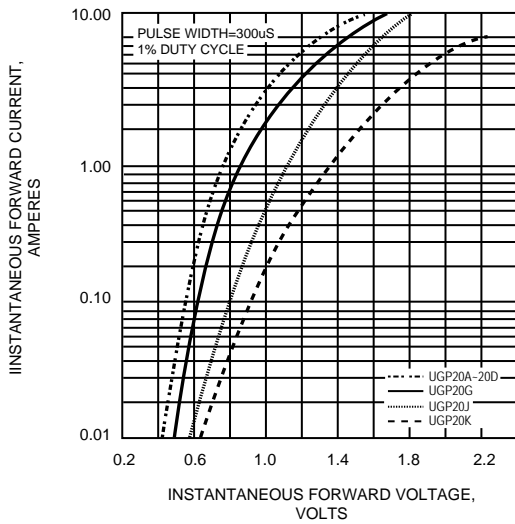


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

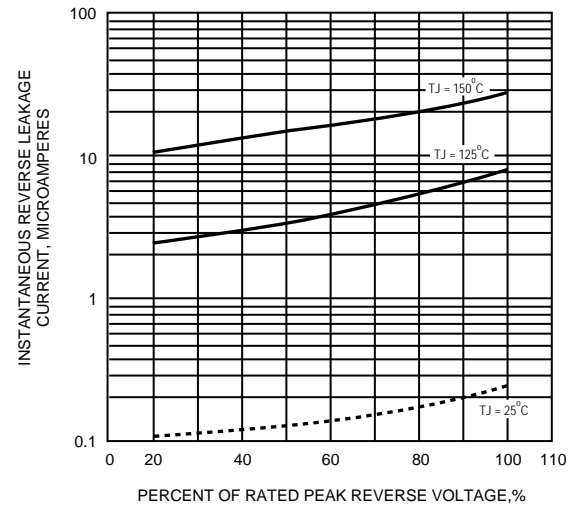


FIG.5 - TYPICAL JUNCTION CAPACITANCE

