DSK Diode Semiconductor Korea *UGP20A --- UGP20K*

ULTRA FAST RECTIFIER

VOLTAGE RANGE: 50 --- 800 V
CURRENT: 2.0

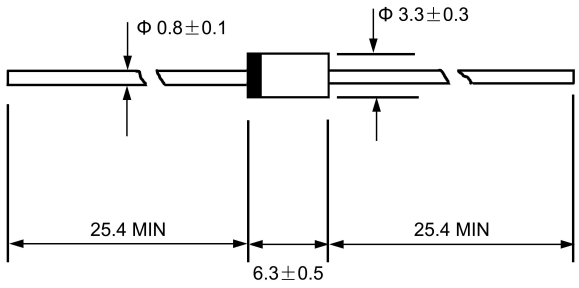
FEATURES

- ◇ Low cost
- ◇ Diffusde junction
- ◇ low leakage current
- ◇ High current capability
- ◇ Easily cleaned with alcohol,Isopropanol and similar solvents
- ◇ Plastic package has underwriters laboratory flammability classification 94v-0

MECHANICAL DATA

- ◇ Case:JEDEC DO--15,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces,0.39 grams
- ◇ Mounting position: Any

DO - 15



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		UGP 20A	UGP 20B	UGP 20D	UGP 20F	UGP 20G	UGP 20J	UGP 20K	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	65.0					60.0		A
Maximum instantaneous forward voltage @ 2.0A	V_F	0.95			1.25		1.70	2.20	V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 100.0							μA
Maximum reverse recovery time (Note1)	trr	35							ns
Typical junction capacitance (Note2)	C_J	22							pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	40							℃/W
Operating junction temperature range	T_J	- 55 ----- + 150							℃
Storage temperature range	T_{STG}	- 55 ----- + 150							℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Thermal resistance junction to ambient

FIG.1 -- FORWARD DERATING CURVE

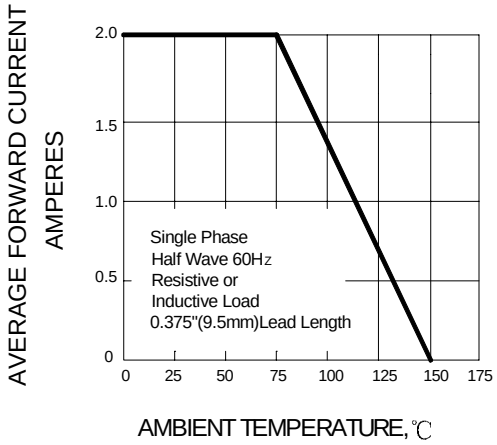


FIG.2 --PEAK FORWARD SURGE CURRENT

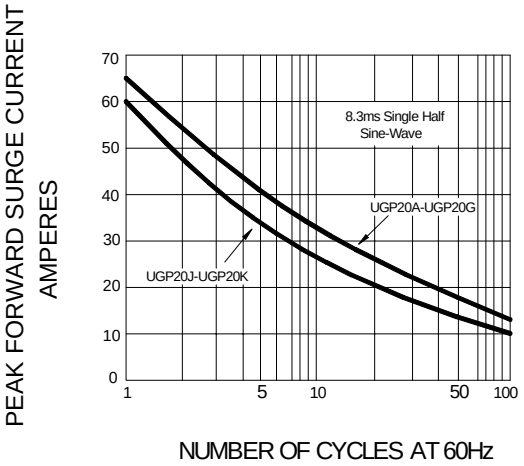


FIG.3 --TYPECAL FORWARD CHARACTERISTICS

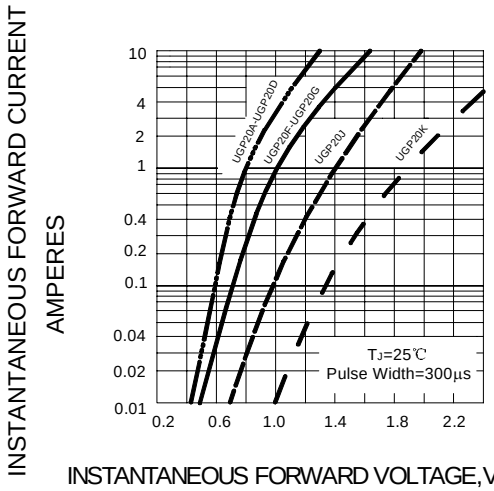


FIG.4--TYPICAL REVERSE CHARACTERISTICS

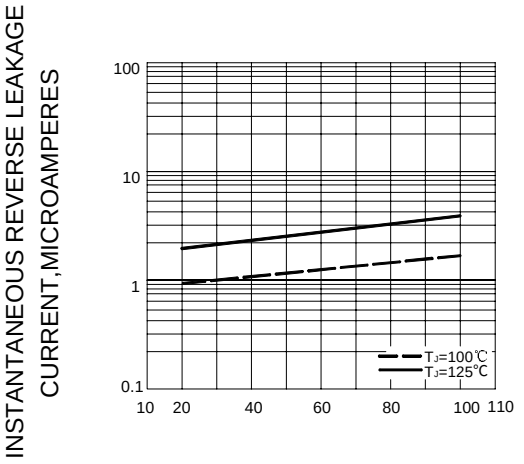


FIG.5--TYPICAL JUNCTION CAPACITANCE

