

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 800 V
CURRENT: 3.0 A

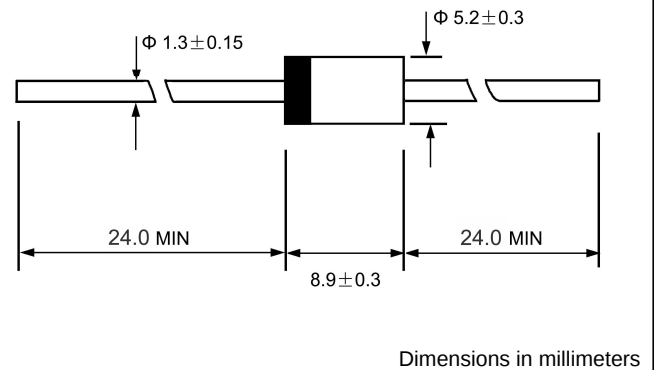
FEATURES

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

MECHANICAL DATA

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

DO - 27



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 by 20%.

		UGP30 A	UGP30 B	UGP30 D	UGP30 F	UGP30 G	UGP30 J	UGP30 K	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°C	I _{F(AV)}	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	125.0					115.0		A
Maximum instantaneous forward voltage @ 3.0A	V _F	0.95			1.25		1.7	2.2	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	5.0 120.0							μ A
Maximum reverse recovery time (Note1)	t _{rr}	35							ns
Typical junction capacitance (Note2)	C _J	35							pF
Typical thermal resistance (Note3)	R _{θJA}	20							°C/W
Operating junction temperature range	T _J	- 55 ----- + 150							°C
Storage temperature range	T _{STG}	- 55 ----- + 150							°C

NOTE: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $t_{rr} = 0.25\text{A}$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient

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FIG.1 -- FORWARD DERATING CURVE

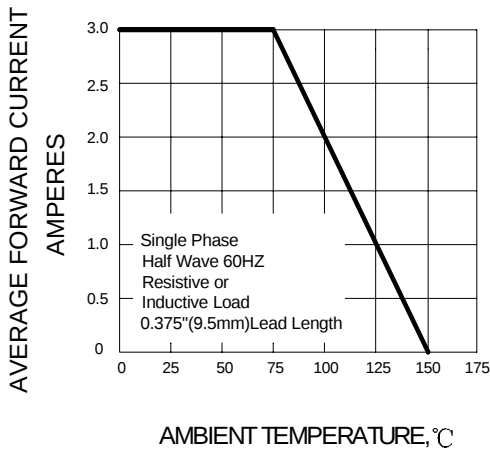


FIG.2 --PEAK FORWARD SURGE CURRENT

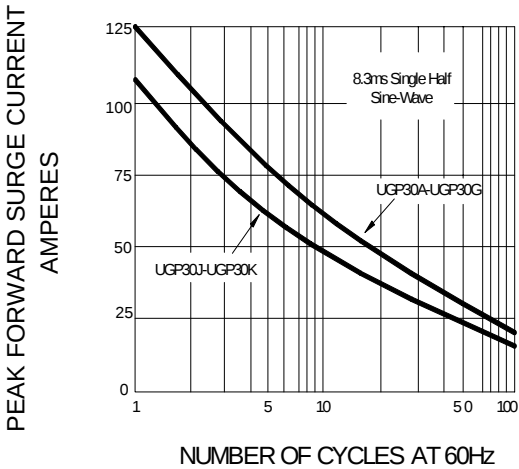


FIG.3 --TYPICAL FORWARD CHARACTERISTIC

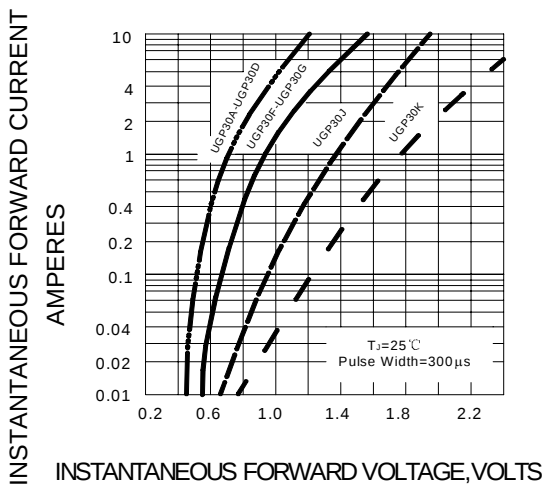


FIG.4--TYPICAL REVERSE CHARACTERISTICS

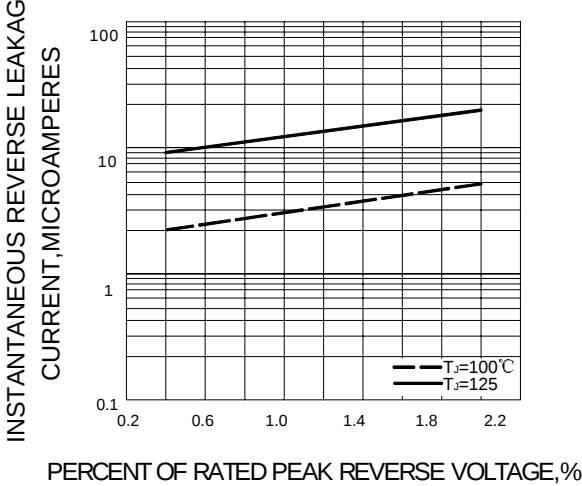


FIG.5--TYPICAL JUNCTION CAPACITANCE

