



UF500G~UF510G ULTRA FAST RECOVERY RECTIFIER

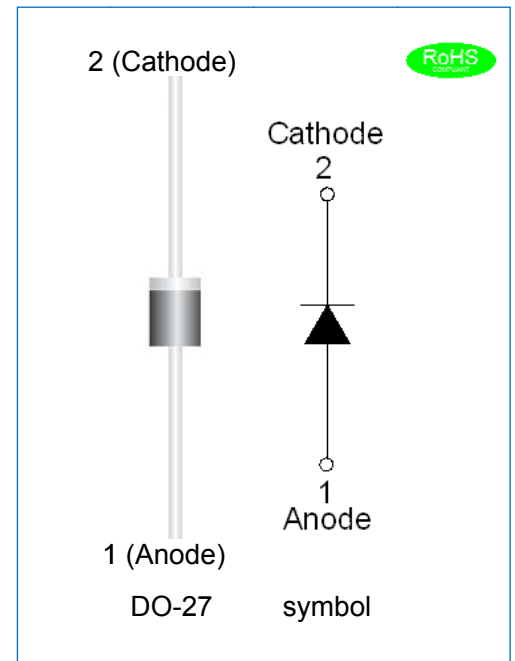
Rev.1.2

DESCRIPTION

- ◇ Plastic package has underwriters laboratory flammability classification 94V-0
- ◇ Exceeds environmental standards of MIL-S-19500/228
- ◇ For surface mounted applications
- ◇ Glass passivated chip junction
- ◇ Lead free in comply with EU RoHS 2011/65/EU directives
- ◇ Ultrafast recovery time for high efficiency

MECHANICAL DATA

- ◇ Case: JEDEC DO-27 molded plastic
- ◇ Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight:1.142 gram



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

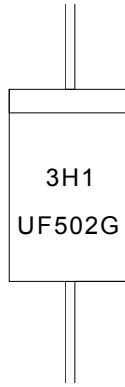
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	UF500G	UF501G	UF502G	UF504G	UF506G	UF508G	UF510G	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward current at $T_A=60^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150				125			A
Maximum forward voltage @ $I_F=5A$	V_F	1.0		1.3		1.7		V	
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_j=25^\circ\text{C}$							μA
		$T_j=150^\circ\text{C}$							μA
Typical junction capacitance $V_R=4.0V, f=1\text{MHz}$	C_J	50				35			pF
Operating junction and storage temperature range	T_j, T_{stg}	-60 to +150							$^\circ\text{C}$
Maximum reverse recovery time $I_F=0.5A, I_R=1A, I_{rr}=0.25A$	t_{rr}	50				75			ns

THERMAL RESISTANCES

Symbol	Parameter	UF500G	UF501G	UF502G	UF504G	UF506G	UF508G	UF510G	Unit
$R_{th(j-a)}$	Junction to ambient	30							°C/W

MARKING



UF	Ultra Fast Recovery Rectifier
5	$I_{F(AV)}=5A$
02	$V_{RRM}:200V$
G	Package:DO-27

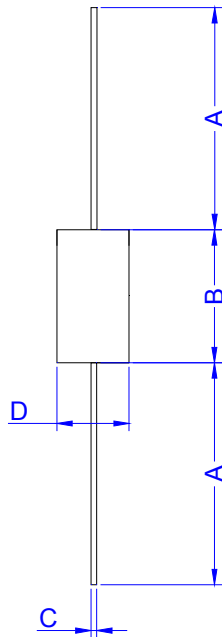
xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

PACKAGE MECHANICAL DATA



DO-27

Ref.	Dimensions			
	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	1.000	-	25.40	-
B	0.283	0.378	7.20	9.60
C	0.038	0.047	0.96	1.20
D	0.189	0.213	4.80	5.40

PACKAGE INFORMATION-DO-27

OUTLINE	UNIT WEIGHT (g/PCS) typ.	INNER BOX (PCS)	PER CARTON (PCS)
Bulk	1.142	1,000	10,000

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics (25°C)

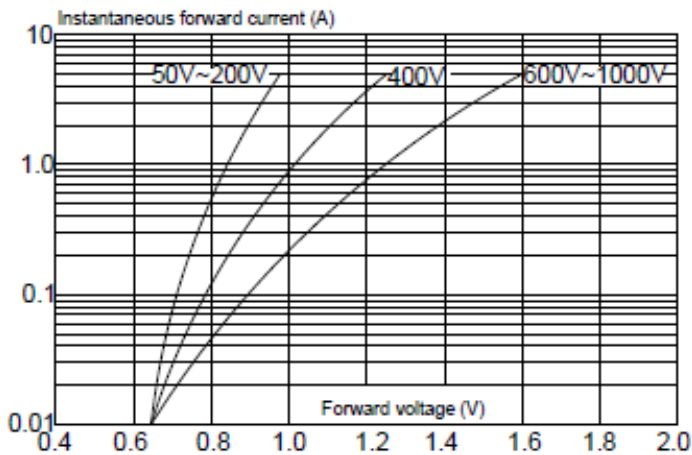


FIG.2: Typical reverse characteristics

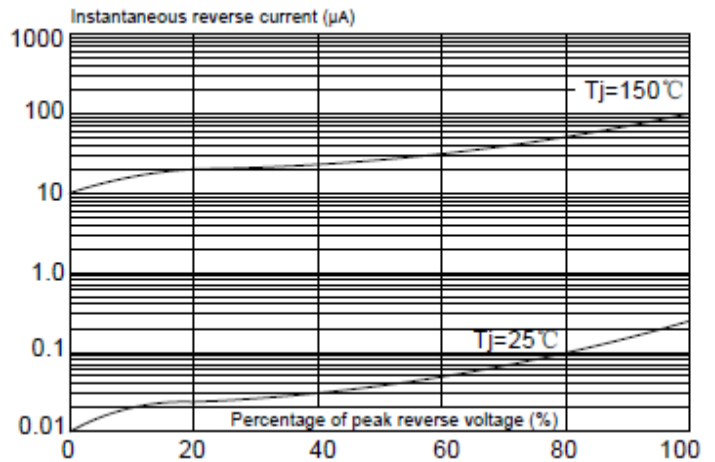


FIG.3: Maximum non-repetitive peak forward surge current

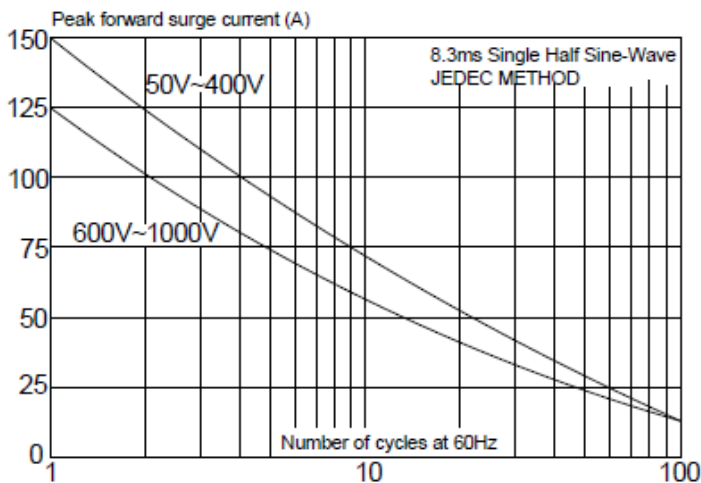
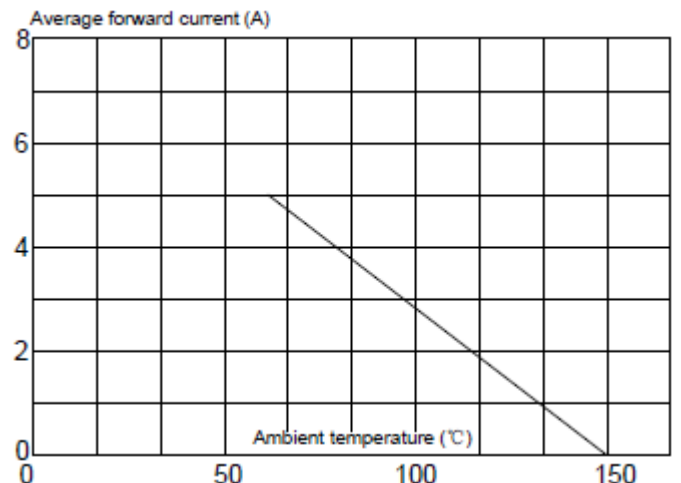


FIG.4: Forward current derating curve



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