



GP500W~GP510W

GENERAL PURPOSE RECTIFIER

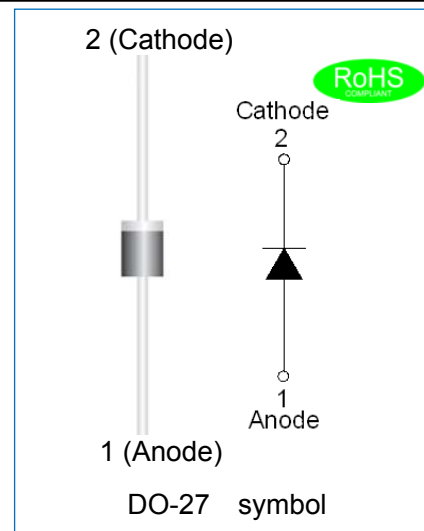
Rev.1.0

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Glass passivated chip junction
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- ✧ Case: JEDEC DO-27 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 1.142 gram



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

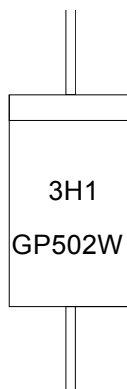
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	GP500W	GP501W	GP502W	GP504W	GP506W	GP508W	GP510W	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 =70°C		I _{F(AV)}	5.0							A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	120							A
Maximum forward voltage @I _F =5A		V _F	1.1							V
Maximum DC reverse current at rated DC blocking voltage	T _j =25°C	I _R	5							µA
	T _j =150°C		700							µA
Typical junction capacitance V _R =4.0V, f=1MHz		C _J	45							pF
Operating junction and storage temperature range		T _j , T _{stg}	-55 to +150							°C

THERMAL RESISTANCES

Symbol	Parameter	GP500W	GP501W	GP502W	GP504W	GP506W	GP508W	GP510W	Unit
$R_{th(j-a)}$	Junction to ambient	35							°C/W

MARKING



GP	General Purpose Rectifier
5	$I_{F(AV)}=5A$
02	$V_{RRM}:200V$
W	Package:DO-27

$\underline{x}H1$: Month, 1、2、3 ~ 9、A、B、C

$3\underline{x}1$:

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	...

$3H\underline{x}$: Batch number

PACKAGE MECHANICAL DATA

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

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

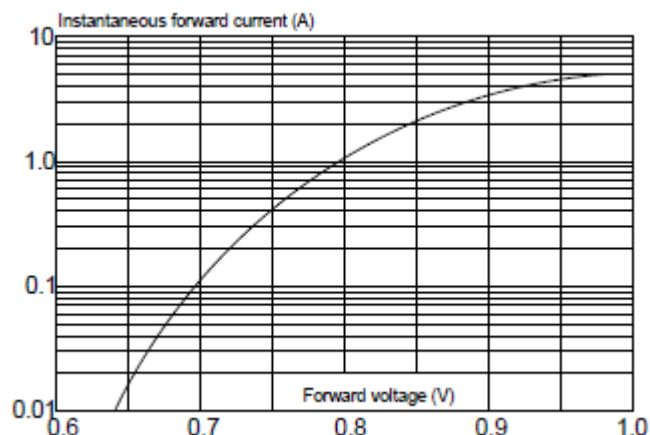


FIG.2: Typical reverse characteristics

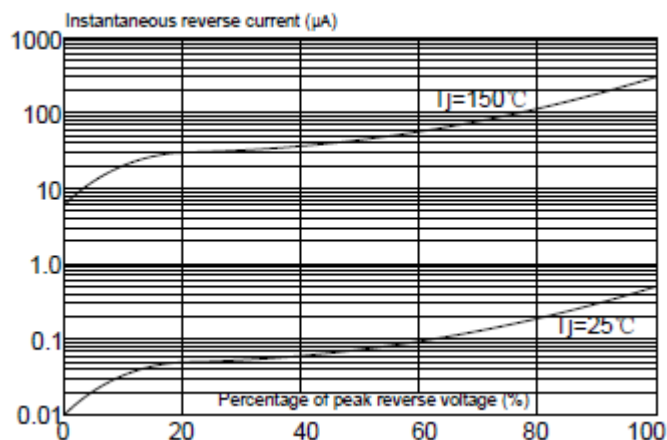


FIG.3: Maximum non-repetitive peak forward surge current

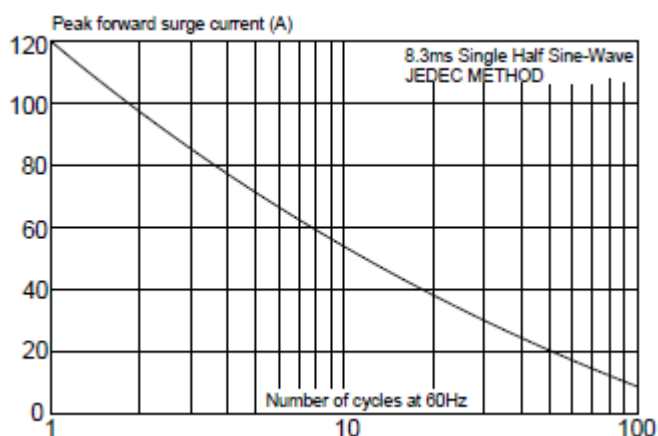
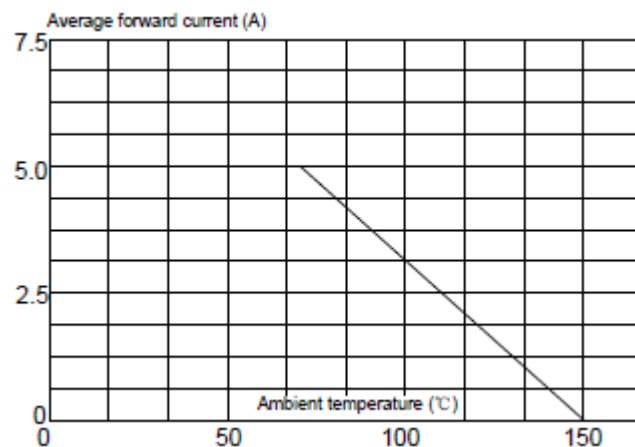


FIG.4: Forward current derating curve



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