

DESCRIPTION:

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

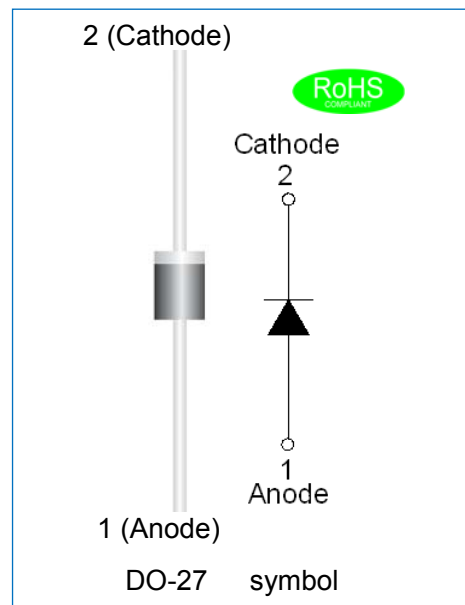
MECHANICAL DATA

- ✧ 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

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

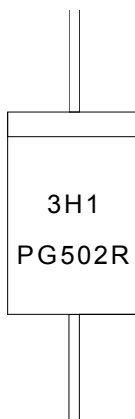
Parameter		Symbol	PG500R	PG501R	PG502R	PG504R	PG506R	PG508R	PG510R	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward current at $T_L=75^\circ\text{C}$		$I_{F(AV)}$	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 @ $I_F=5\text{A}$		V_F	1.3							V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	I_R	5.0							μA
	$T_j=150^\circ\text{C}$		500							μA
Typical Junction Capacitance $V_R=4.0\text{V}$, $f=1\text{MHz}$		C_J	65							pF
Operating junction and storage temperature range		T_j, T_{stg}	-55 to +150							$^\circ\text{C}$
Maximum reverse recovery time $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$		t_{rr}	150				250	500		ns



THERMAL RESISTANCES

Symbol	Parameter	PG500R	PG501R	PG502R	PG504R	PG506R	PG508R	PG510R	Unit
$R_{th(j-L)}$	Junction to lead	15							°C/W

MARKING:



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

xH1: Month, 1、2、3 ~ 9、A、B、C

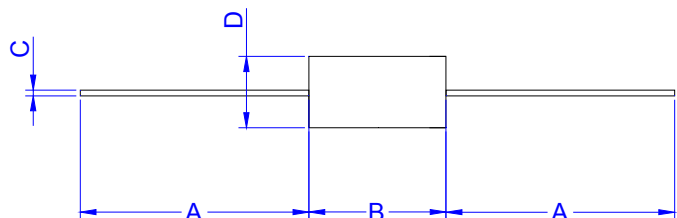
3x1:

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

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 (25°C)

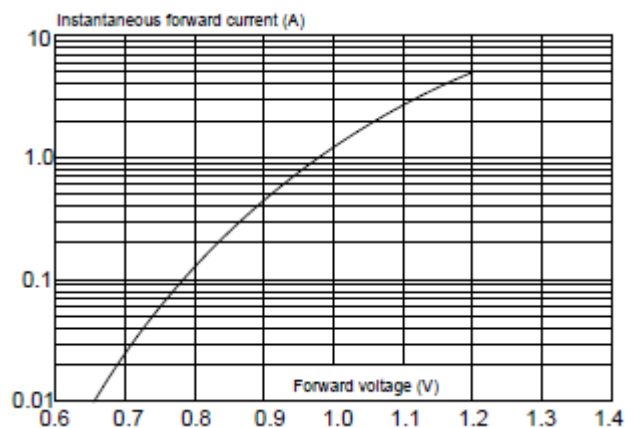


FIG.2: Typical reverse characteristics

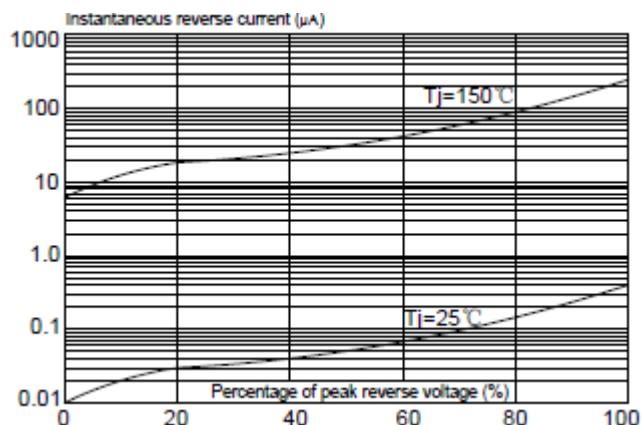


FIG.3: Maximum non-repetitive peak forward surge current

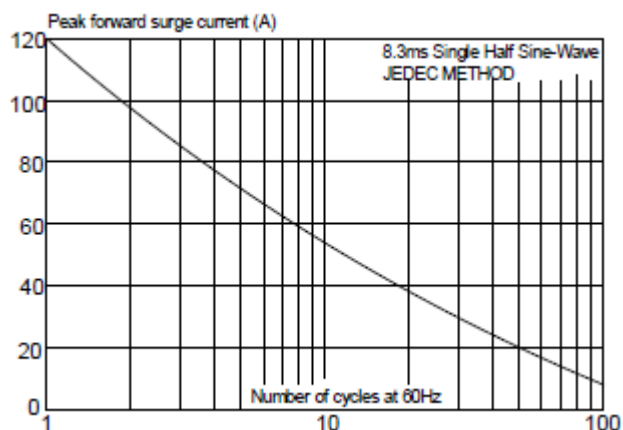


FIG.4: Forward current derating curve

