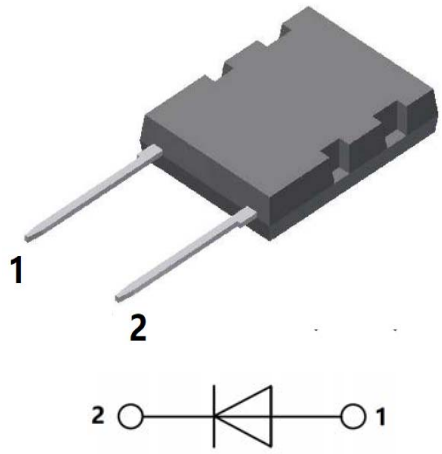
High Voltage Standard Rectifier



Features

- Glass passivated chip
- Very low leakage current
- Very low forward voltage drop
- Improved thermal behaviour

Typical Application

- Diode for main rectification
- For single and three phase bridge configurations

Mechanical Data

- **Package**: TO-264P
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Backside: DBC ceramic , Soldering pins for PCB mounting ,Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity**: As marked

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GP120220KO
Device marking code			GP120220KO
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	2200
Maximum Non-repetitive Reverse Blocking Voltage	V_{RSM}	V	2300
Maximum DC Blocking Voltage	V_{DC}	V	2200
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc	I_O	A	120
Surge(Non-repetitive) Forward Current @50Hz half sine-wave, 1 cycle, Tj=25℃	I_{FSM}	A	2200
Current Squared Time @1ms≤t≤10ms, Tj=25℃	I^2t	A^2s	24200
Storage Temperature	Tstg	℃	-55 ~ +150
Junction Temperature	Tj	℃	-55 ~ +150

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GP120220KO
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=120A	1.31
Maximum DC reverse current at rated DC blocking voltage per diode @ $V_{RM}=V_{RRM}$	I_{RRM1}	uA	Ta=25℃	100
			Ta=100℃	500
			Ta=150℃	3500

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	GP120220KO
Typical Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	℃/W	5.0
	Between junction and ambient	$R_{\theta J-A}$		2.5
	Between junction and case	$R_{\theta J-C}$		0.5

■Characteristics (Typical)

FIG.1: Io-TC Curve

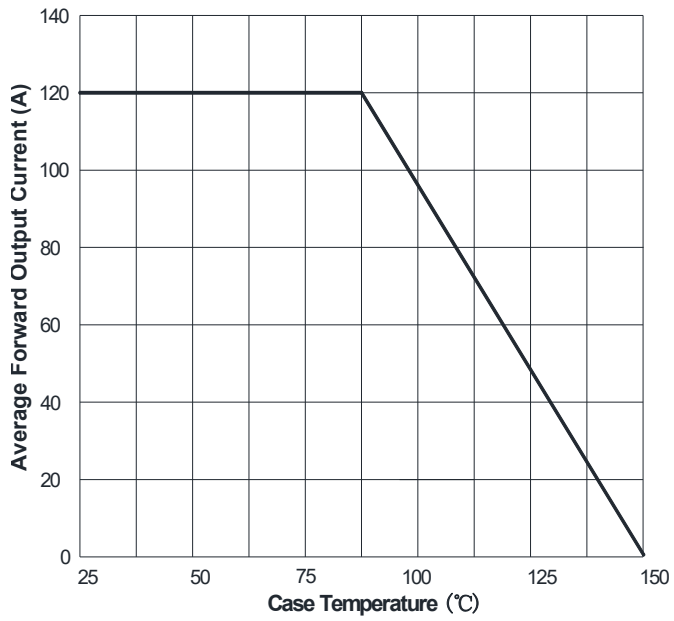


FIG2:Surge Forward Current Capability

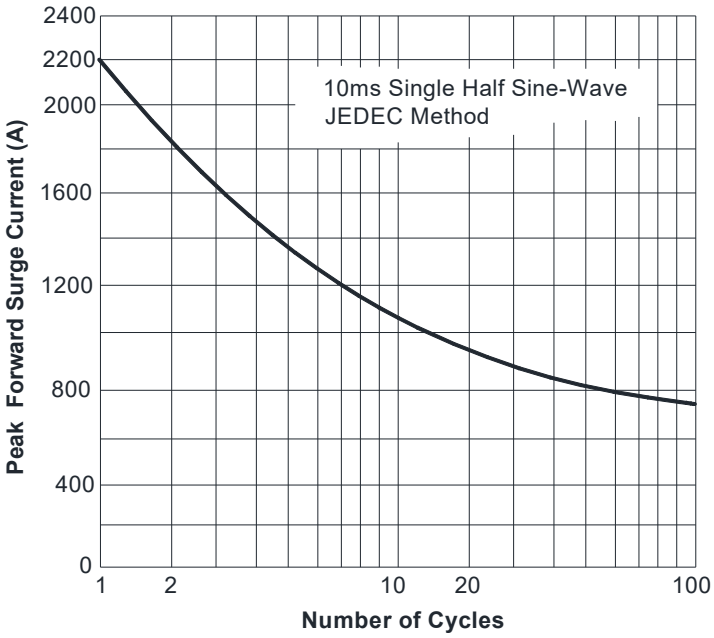


FIG3: Typical Forward Voltage

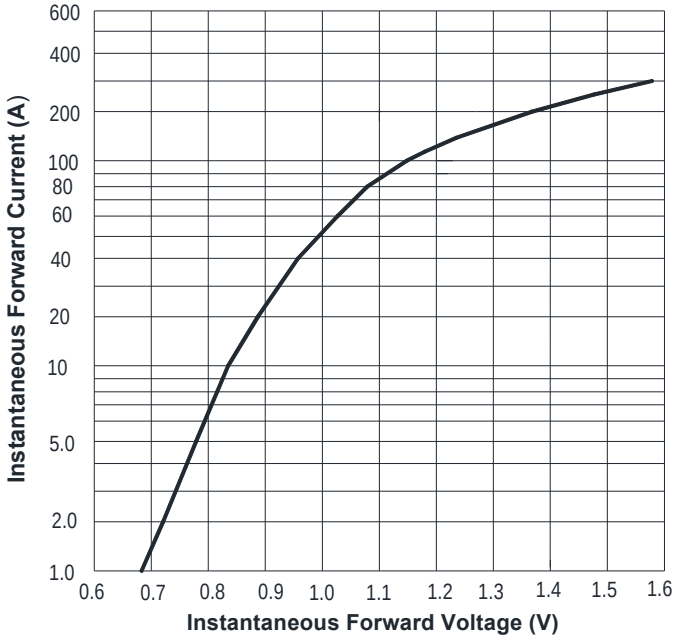
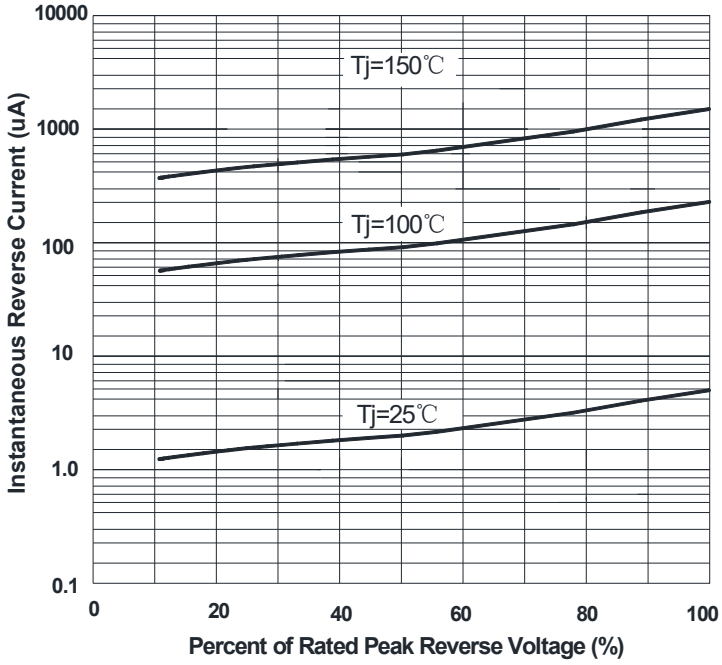


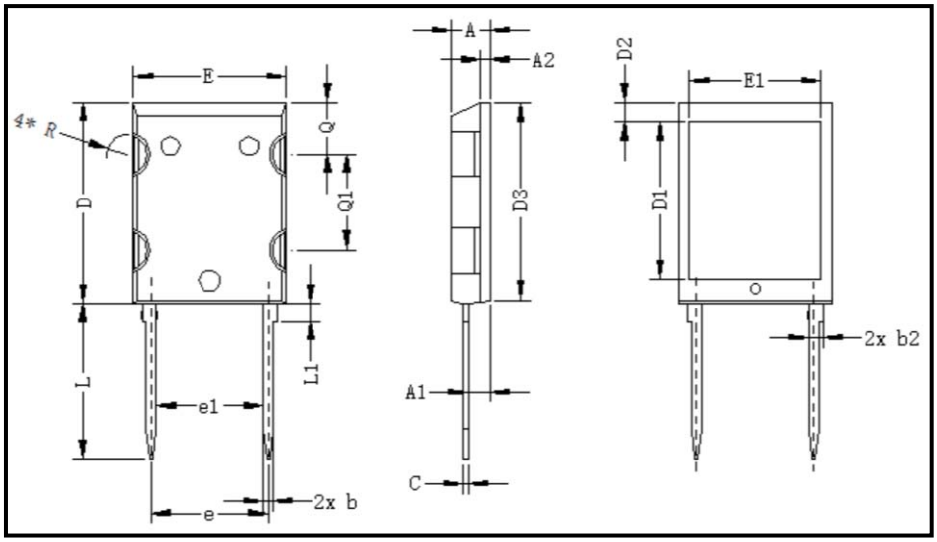
FIG.4: Typical Reverse Characteristics



■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GP120220KO	B1	Approximate 6.9	20	400	2000	Tube

■Outline Dimensions



TO-264P(mm)		
Dim	Min	Max
A	4.8	5.2
A1	2.6	3.0
A2	1.14	1.34
b	1.16	1.36
b2	1.7	1.9
c	0.53	0.73
D	25.9	26.4
D1	20.1	20.9
D2	2.12	2.92
D3	25.31	25.81
E	19.6	20.2
E1	16.75	17.55
e	15.24 Typ	
e1	13.98 Typ	
L	19.82	20.82
L1	2.07	2.57
Q	6.4	7.0
Q1	12.2	12.8
R	2.22	2.92

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