



## GP4516SRT GENERAL PURPOSE RECTIFIER

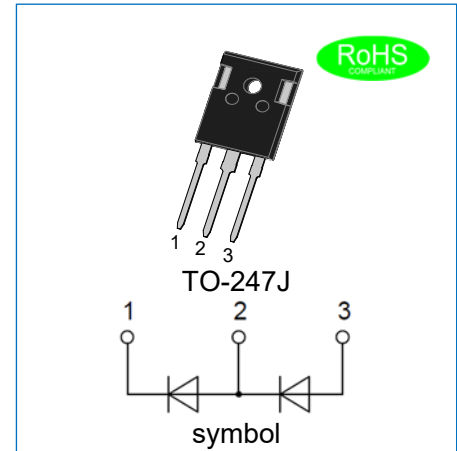
Rev.1.4

### 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: TO-247J, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 6 gram



### ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS(Per diode)

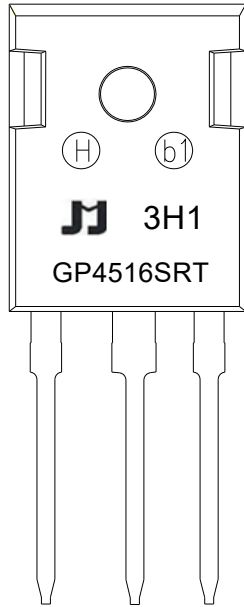
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	GP4516SRT	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	1600	V
Maximum RMS voltage	$V_{RMS}$	1120	V
Maximum DC blocking voltage	$V_{DC}$	1600	V
Average forward current at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	45	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	360	A
Maximum forward voltage @ $I_F=45\text{A}$	$V_F$	1.2	V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	10	$\mu\text{A}$
	$T_j=150^\circ\text{C}$	1.5	mA
Typical junction capacitance $V_R=4.0\text{V}$ , $f=1\text{MHz}$	$C_J$	240	pF
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$
Virtual junction temperature	$T_{VJ}$	-55 to +175	$^\circ\text{C}$

THERMAL RESISTANCES

Symbol	Parameter	GP4516SRT	Unit
R <sub>th(j-c)</sub>	Junction to case	0.4	°C/W

MARKING



G	General Purpose Rectifier
P	Pin
45	I <sub>F(AV)</sub> =45A
16	V <sub>RRM</sub> :1600V
S	TO-247J
RT	Reverse tandem

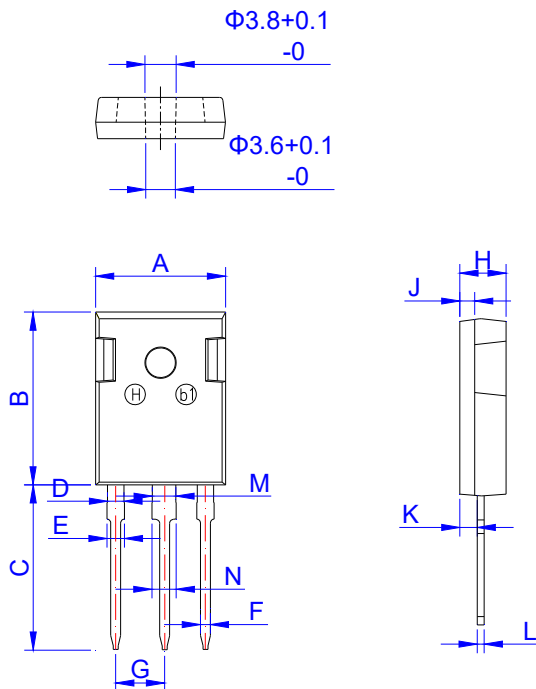
xH1: Month, 1/2/3~9/A/B/C

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



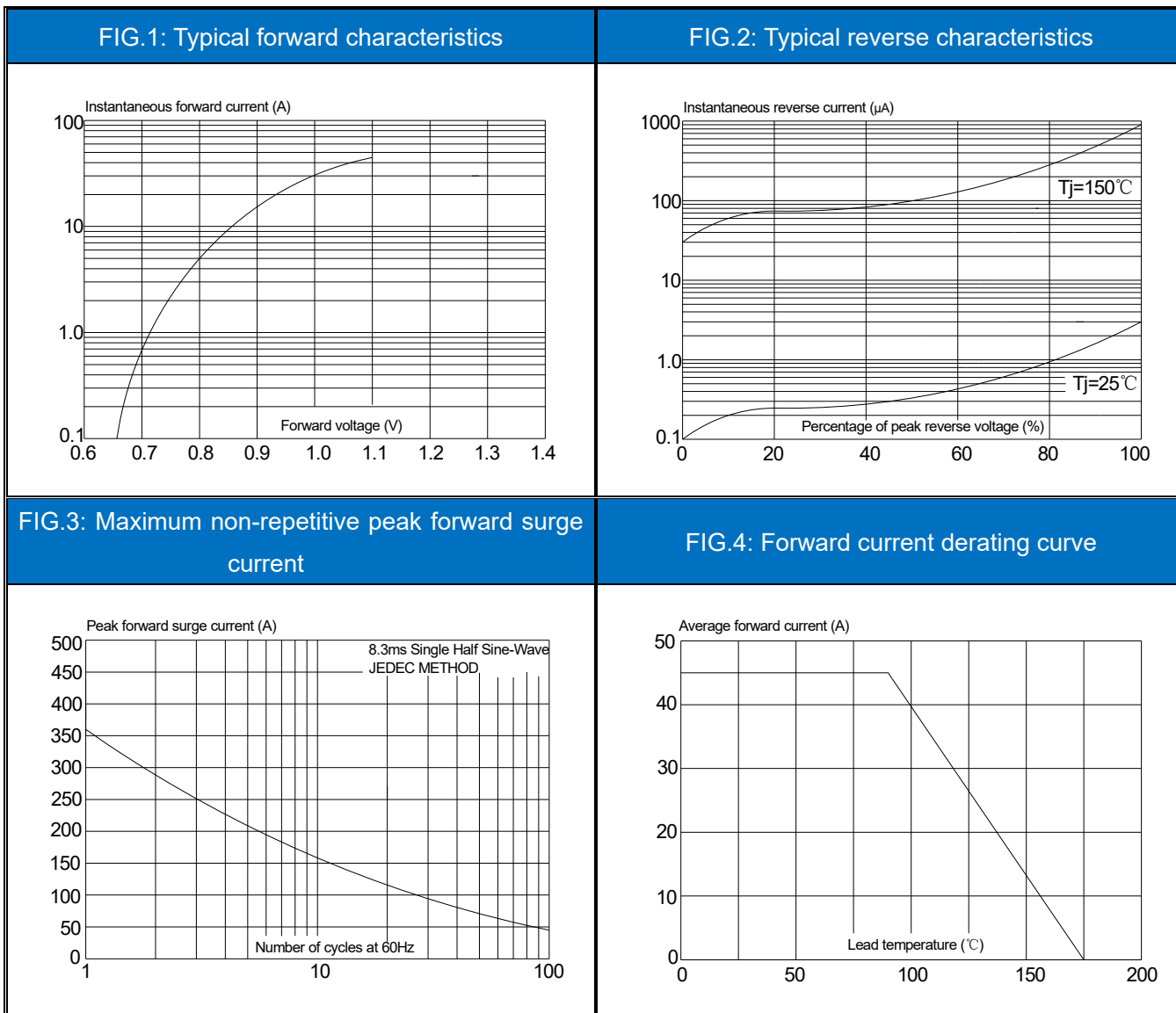
TO-247J

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.50	15.80	16.10	0.610	0.622	0.634
B	20.80	21.00	21.20	0.819	0.827	0.835
C	19.70	20.00	20.30	0.776	0.787	0.799
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.90	2.10	2.30	0.075	0.083	0.091
F	1.00	1.20	1.40	0.039	0.047	0.055
G	5.25		5.65	0.207		0.222
H	4.80	5.00	5.20	0.189	0.197	0.205
J	1.90	2.00	2.10	0.075	0.079	0.083
K	2.20	2.35	2.50	0.087	0.093	0.098
L	0.41	0.60	0.79	0.016	0.024	0.031
M	2.80	3.00	3.20	0.110	0.118	0.126
N	2.90	3.10	3.30	0.114	0.122	0.130

PACKAGE INFORMATION-TO-247J

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	6	30	2,250

CHARACTERISTICS CURVE




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