



GP9016IS GENERAL PURPOSE RECTIFIER

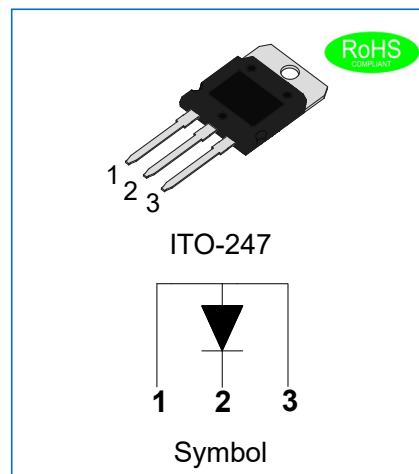
Rev.1.0

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: ITO-247, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Internally constructed isolated package is offered for ease of heat sinking with highest isolation voltage
- ✧ Weight: 10.2 gram



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

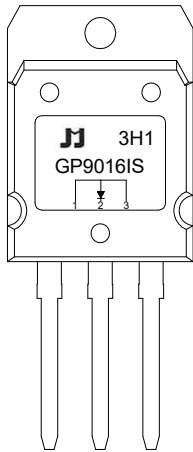
(Rating at 25°C ambient temperature unless otherwise specified and refer to a single diode.)

Parameter		Symbol	GP9016IS	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
Maximum average forward current at $T_L=100^{\circ}C$		$I_{F(AV)}$	90	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	1150	A
Maximum forward voltage@ $I_F=90A$		V_F	1.2	V
Maximum DC reverse current at rated DC blocking voltage	$T_J=25^{\circ}C$	I_R	10	μA
	$T_J=150^{\circ}C$		1.5	mA
Typical junction capacitance $V_R=4.0V$, $f=1MHz$		C_J	60	pF
Operating junction and storage temperature range		T_J, T_{STG}	-55 to +150	$^{\circ}C$

THERMAL RESISTANCES

Symbol	Parameter	GP9016IS	Unit
$R_{th(j-c)}$	Junction to case	1.6	$^{\circ}\text{C}/\text{W}$

MARKING



G	General Purpose Rectifier
P	Pin
90	$I_{F(AV)}=90\text{A}$
16	$V_{RRM}:1600\text{V}$
IS	Package: ITO-247

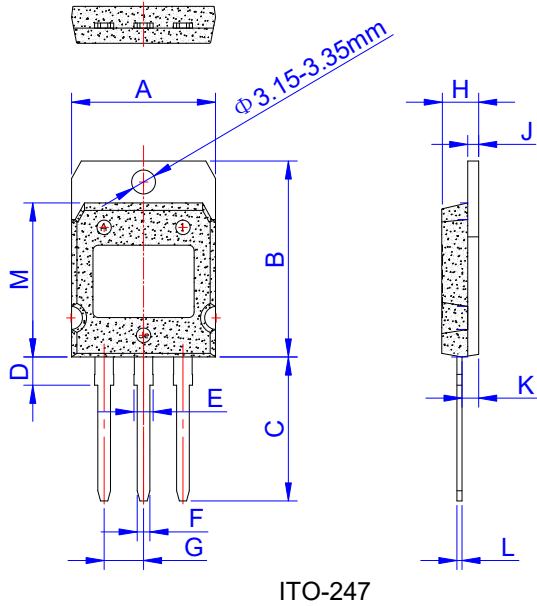
xH1: Month, 1、2、3 ~ 9、A、B、C

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.	Typ.	Max.	Min.	Typ.	Max.
A	19.7	19.9	20.1	0.776	0.783	0.791
B	26.9	27.1	27.3	1.059	1.067	1.075
C	19.4	19.9	20.4	0.764	0.783	0.803
D	3.80	3.90	4.00	0.150	0.154	0.157
E	2.56	2.66	2.76	0.101	0.105	0.109
F	1.66	1.76	1.86	0.065	0.069	0.073
G		5.45			0.215	
H	5.05	5.10	5.50	0.199	0.201	0.217
J	1.45	1.50	1.55	0.057	0.059	0.061
K	2.20	2.30	2.40	0.087	0.091	0.094
L	0.60	0.70	0.80	0.024	0.028	0.031
M	21.2	21.3	21.4	0.835	0.839	0.843

PACKAGE INFORMATION-ITO-247

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	10.2	25	1,600

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

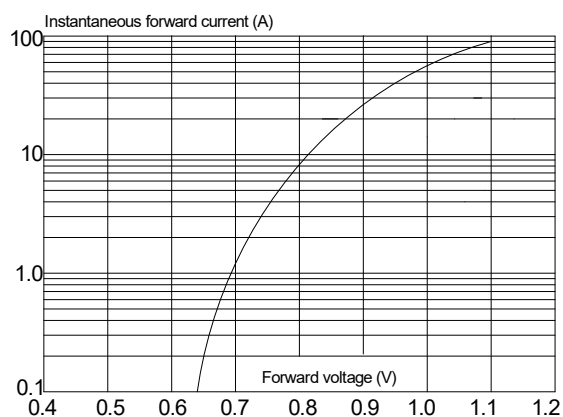


FIG.2: Typical reverse characteristics

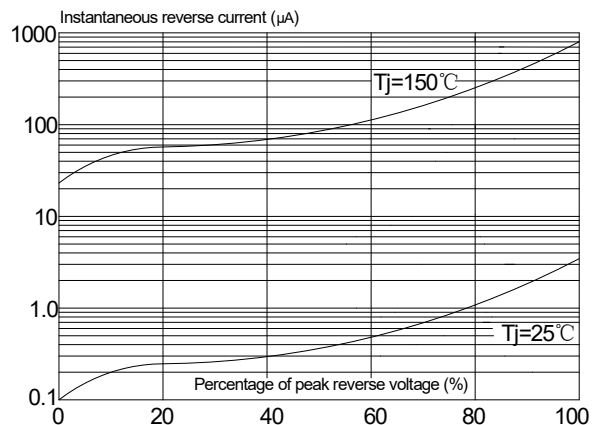


FIG.3: Maximum non-repetitive peak forward surge current

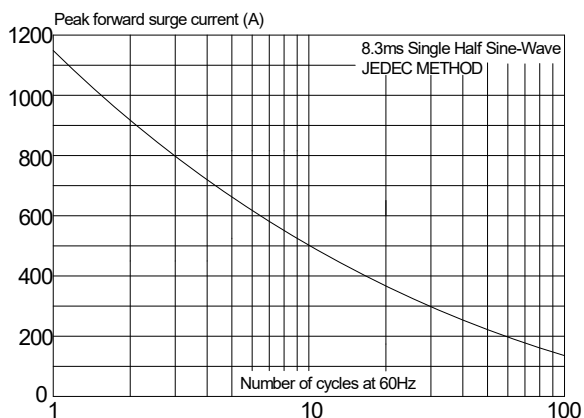
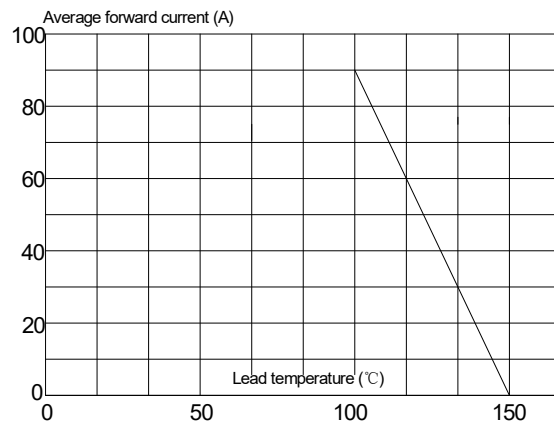


FIG.4: Forward current derating curve



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