



PR6016IL PLANAR RECTIFIER

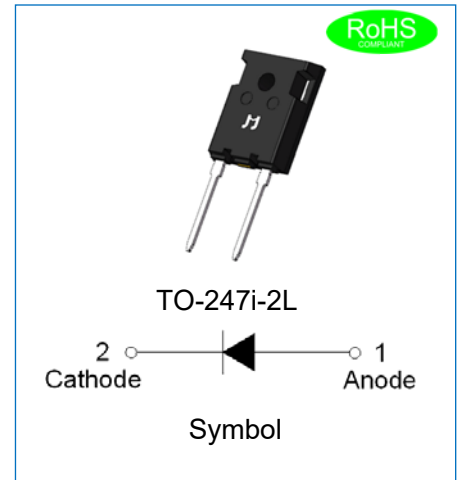
Rev.0.1

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Planar technology
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive
- ✧ Insulation (2500V_{RMS}) allows placement on same heatsink as mosfet and flexible heatsinking on common or separate heatsink

MECHANICAL DATA

- ✧ Case: TO-247i-2L molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbol	PR6016IL	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 $T_C=140^{\circ}\text{C}$		$I_{F(AV)}$	60	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	700	A
Maximum forward voltage @ $I_F=60\text{A}$		V_F	1.15	V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^{\circ}\text{C}$	I_R	10	μA
	$T_j=150^{\circ}\text{C}$		1.5	mA
Operating junction and storage temperature range		T_J, T_{STG}	-55 to +175	$^{\circ}\text{C}$

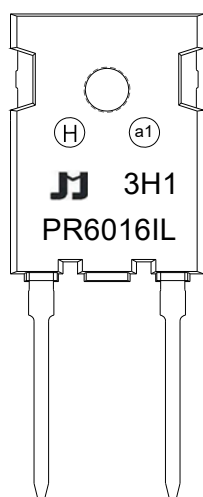
ISOLATION CHARACTERISTICS

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
$V_{isol(RMS)}$	RMS isolation voltage	50Hz≤f≤60Hz, RH≤65%, from all pins to external heatsink, sinusoidal waveform, clean and dust free	-	-	2500	V
C_{isol}	Isolation capacitance	from cathode to external heatsink	-	10	-	pF

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Junction to case	-	0.6	-	°C/W

MARKING



PR	Planar Rectifier
60	$I_{F(AV)}=60A$
16	$V_{RRM}:1600V$
IL	Insulation package: TO-247i-2L

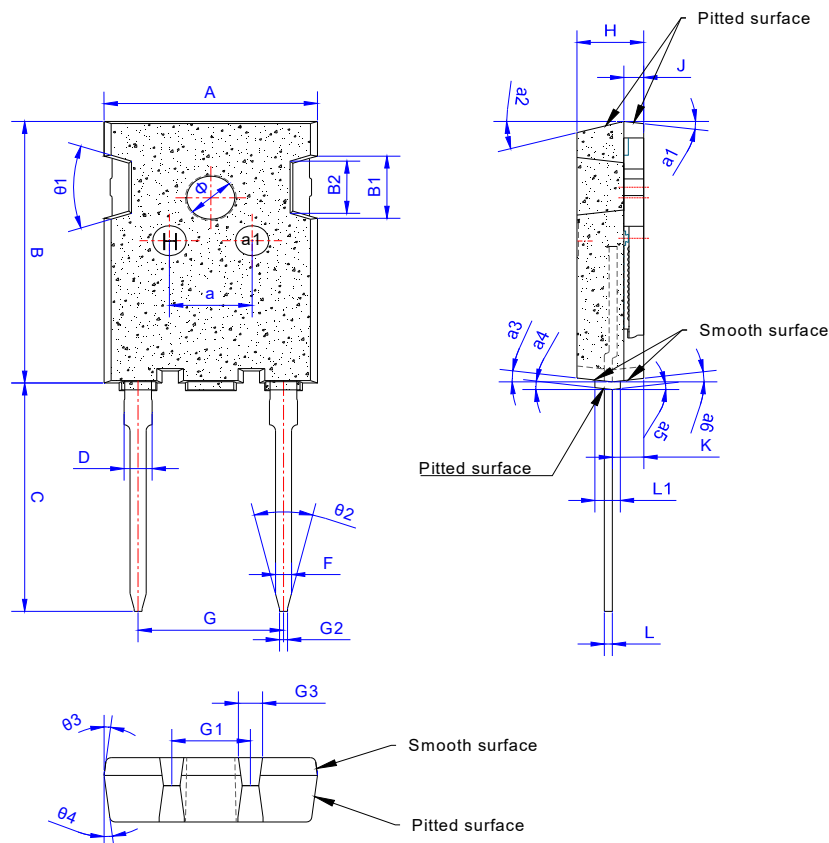
xH1: Month, 1/2/3~9/A/B/C

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



Symbol	Dimension			Inches			Symbol	Dimension			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.		Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.95	16.00	16.05	0.628	0.630	0.632	K	2.30	2.35	2.40	0.091	0.093	0.094
a	6.15	6.20	6.25	0.242	0.244	0.246	L	0.59	0.60	0.61	0.023	0.024	0.024
B	21.85	21.90	21.95	0.860	0.862	0.864	L1	1.85	1.90	1.95	0.073	0.075	0.077
B1	5.15	5.20	5.25	0.203	0.205	0.207	φ	3.55	3.60	3.65	0.140	0.142	0.144
B2	4.32	4.37	4.42	0.170	0.172	0.174	θ1	35°	36°	37°	35°	36°	37°
C	19.01	19.11	19.21	0.748	0.752	0.756	θ2	26°	27°	28°	26°	27°	28°
D	2.07	2.10	2.13	0.081	0.083	0.084	θ3	6°	7°	8°	6°	7°	8°
F	1.15	1.20	1.25	0.045	0.047	0.049	θ4	6°	7°	8°	6°	7°	8°
G	10.90REF			0.429REF			α1	6°	7°	8°	6°	7°	8°
G1	5.85	5.90	5.95	0.230	0.232	0.234	α2	14°	15°	16°	14°	15°	16°
G2		0.60			0.024		α3	6°	7°	8°	6°	7°	8°
G3	1.76	1.81	1.86	0.069	0.071	0.073	α4	6°	7°	8°	6°	7°	8°
H	4.95	5.00	5.05	0.195	0.197	0.199	α5	6°	7°	8°	6°	7°	8°
J	1.44	1.49	1.54	0.057	0.059	0.061	α6	6°	7°	8°	6°	7°	8°

PACKAGE INFORMATION-TO-247i-2L

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	6.00	30	2,250

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

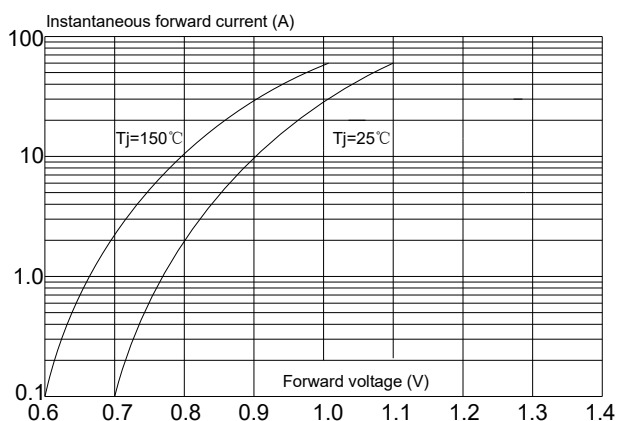


FIG.2: Typical reverse characteristics

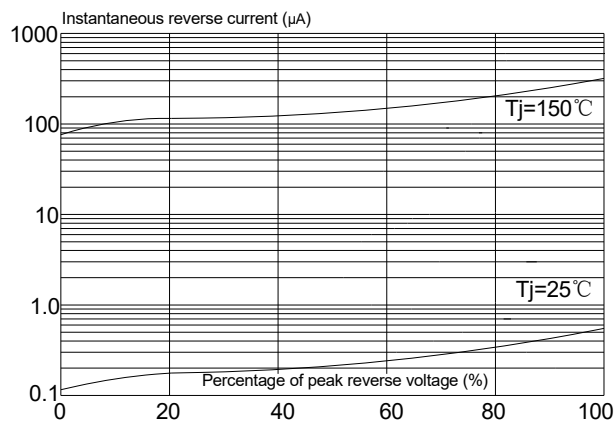


FIG.3: Maximum non-repetitive peak forward surge current

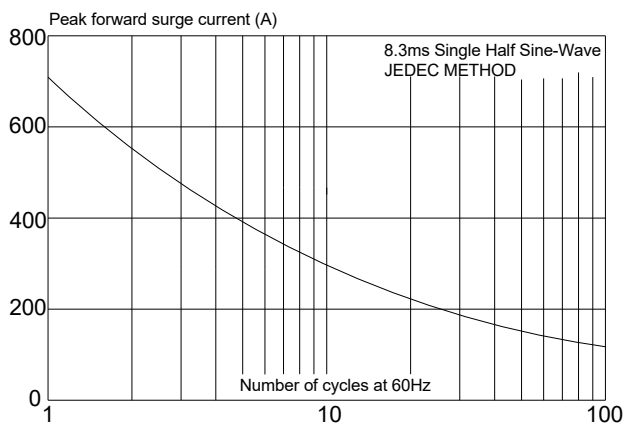
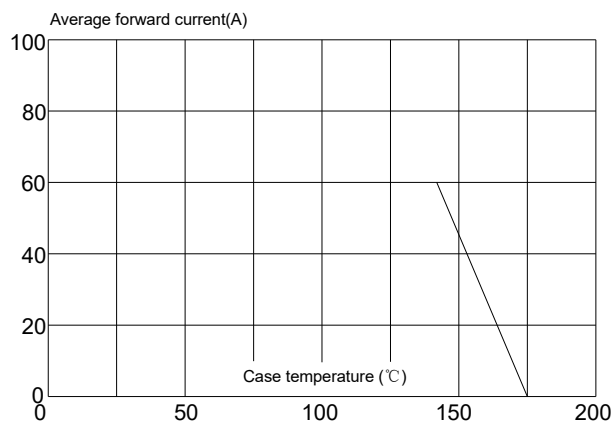


FIG.4: Forward current derating curve



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