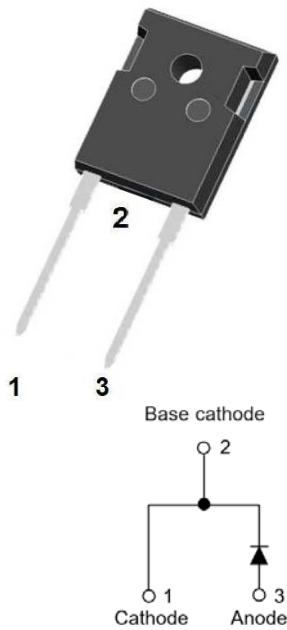


General Purpose Rectifier Diodes



Features

- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Application

- Input rectification

Mechanical Data

- **Package:** TO-247-2L
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	60EPS12	60EPS16
Device marking code			60EPS12	60EPS16
Repetitive Peak Reverse Voltage	V _{RRM}	V	1200	1600
Average Rectified Output Current @60Hz half sine-wave, R-load, T _c (FIG.1)	I _o	A	60	
Surge(Non-repetitive) Forward Current @50Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	A	950	
Current Squared Time @1ms≤t≤10ms T _j =25°C	I ² t	A ² s.	4525	
Storage Temperature	T _{stg}	°C	-55 ~ +150	
Junction Temperature	T _j	°C	-55 ~ +150	

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	60EPS12	60EPS16
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =30.0A	1.1	
			I _{FM} =60.0A	1.3	
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	V _{RM} =V _{RRM} T _a =25°C	5	
	I _{RRM2}		V _{RM} =V _{RRM} T _a =125°C	500	
	I _{RRM2}		V _{RM} =V _{RRM} T _a =150°C	1000	



60EPS12 THRU 60EPS16

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	60EPS12	60EPS16
Typical Thermal Resistance	Between junction and ambient	R _{θJ-A}	°CW	40	
	Between junction and case	R _{θJ-C}		0.35	

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
60EPS12 THRU 60EPS16	Approximate 6.0	33	330	1980	Tube

■ Characteristics (Typical)

FIG.1: I_o-TC Curve

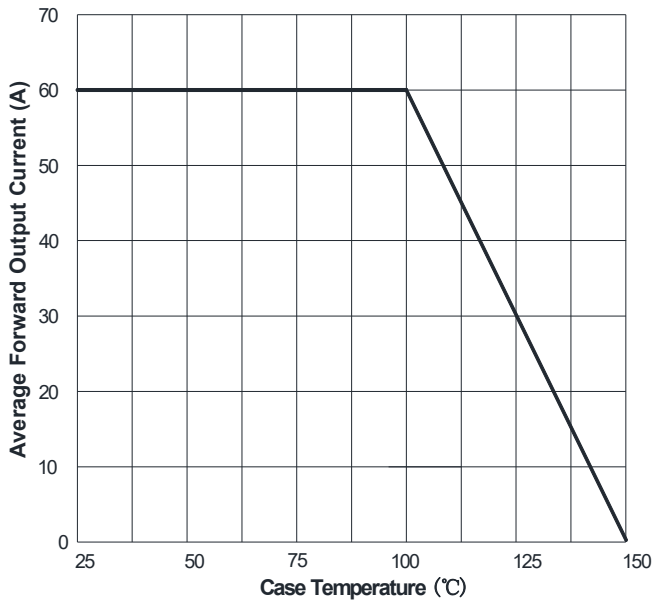


FIG.2: Surge Forward Current Capability

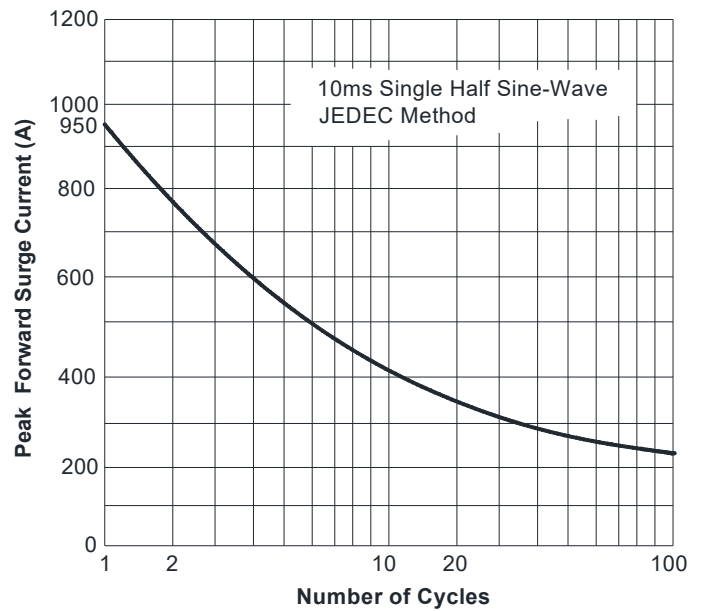


FIG.3: Typical Forward Voltage

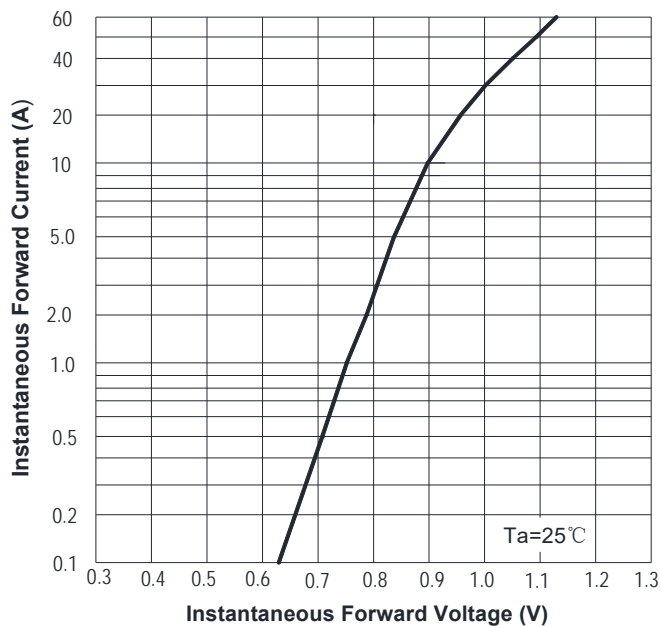
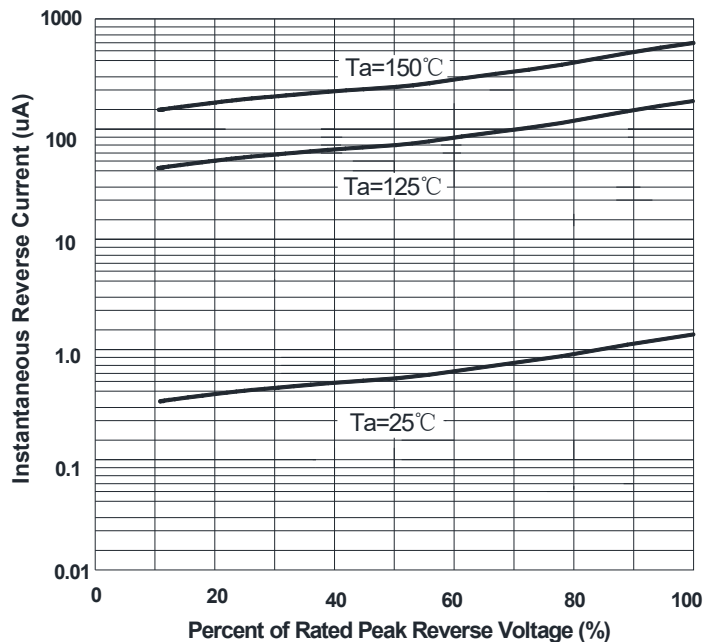


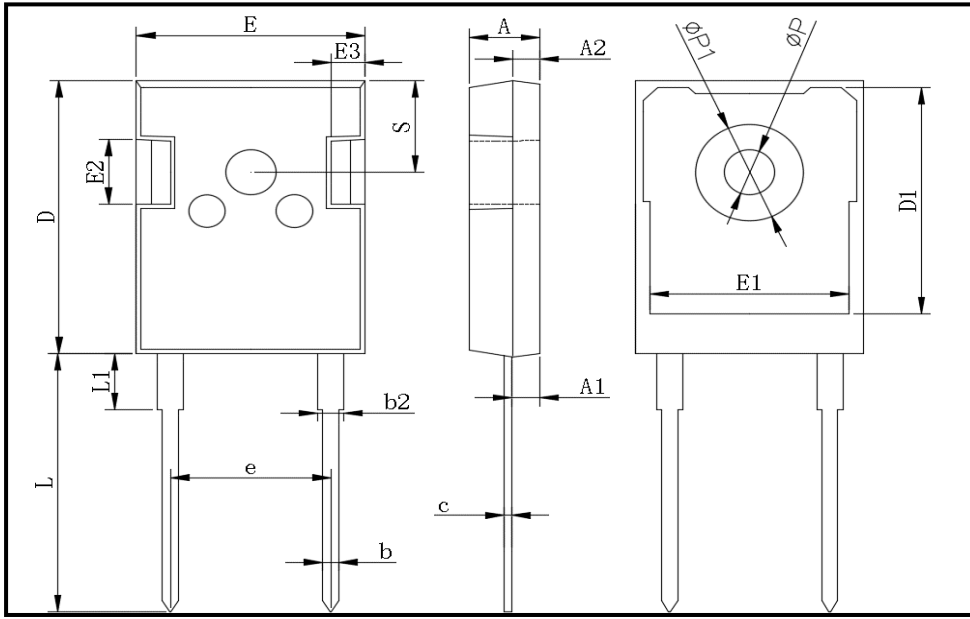
FIG.4: Typical Reverse Characteristics





60EPS12 THRU 60EPS16

■Outline Dimensions



TO-247-2L		
Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.00	1.40
b2	1.91	2.21
c	0.50	0.70
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.00	13.60
E2	4.80	5.20
E3	2.30	2.70
e	10.88 TYP	
L	19.62	20.22
L1	-	4.30
φP	3.40	3.80
φP1	-	7.30
S	6.15 TYP	



60EPS12 THRU 60EPS16

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.