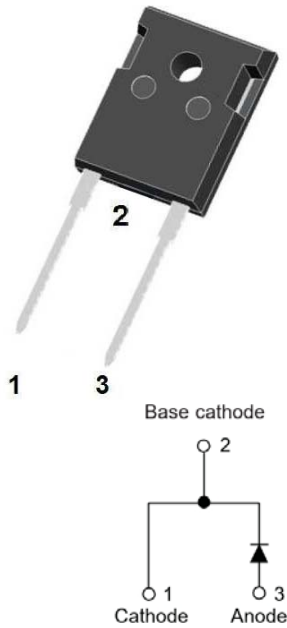


## General Purpose Rectifier Diodes



### 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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	60EPS12	60EPS16
Device marking code			60EPS12	60EPS16
Repetitive Peak Reverse Voltage	VRRM	V	1200	1600
Average Rectified Output Current @60Hz half sine-wave, R-load, T <sub>c</sub> (FIG.1)	I <sub>o</sub>	A	60	
Surge(Non-repetitive) Forward Current @50Hz half sine-wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	950	
Current Squared Time @1ms≤t≤10ms T <sub>j</sub> =25°C	I <sup>2</sup> t	A <sup>2</sup> s.	4525	
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +150	
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +150	

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

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



# 60EPS12 THRU 60EPS16

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

PARAMETER		SYMBOL	UNIT	60EPS12	60EPS16
Typical Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	°CW	40	
	Between junction and case	$R_{\theta J-C}$		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: Io-TC Curve

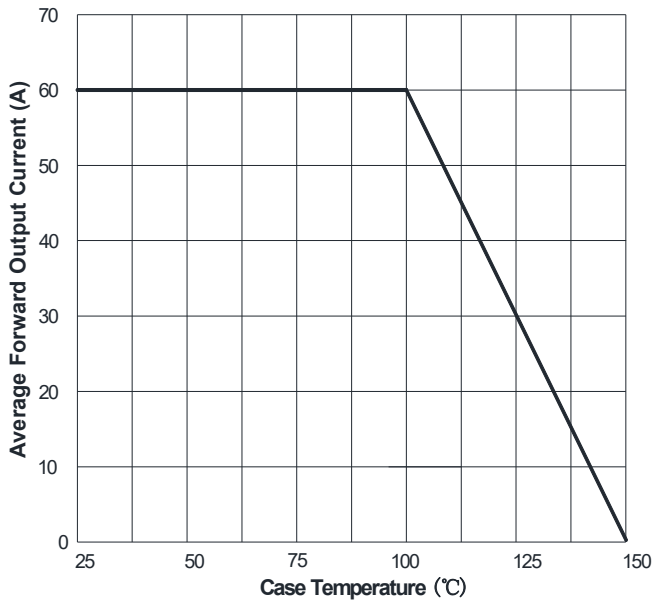


FIG.2: Surge Forward Current Capability

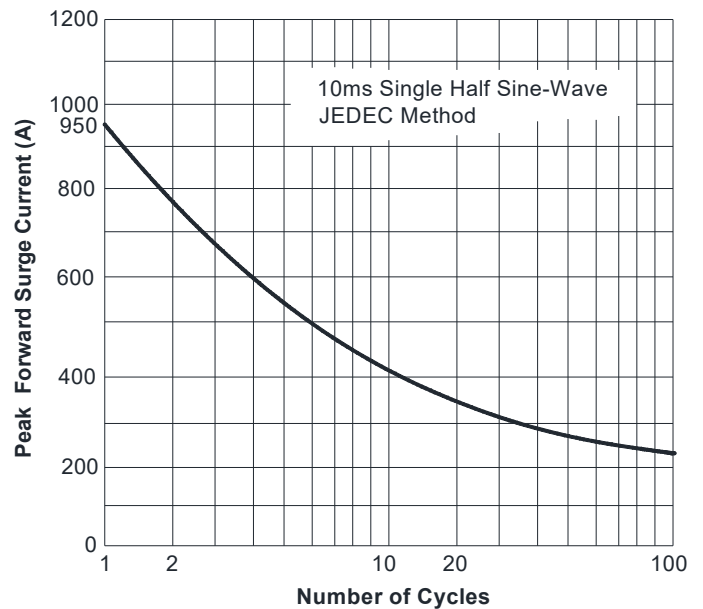


FIG.3: Typical Forward Voltage

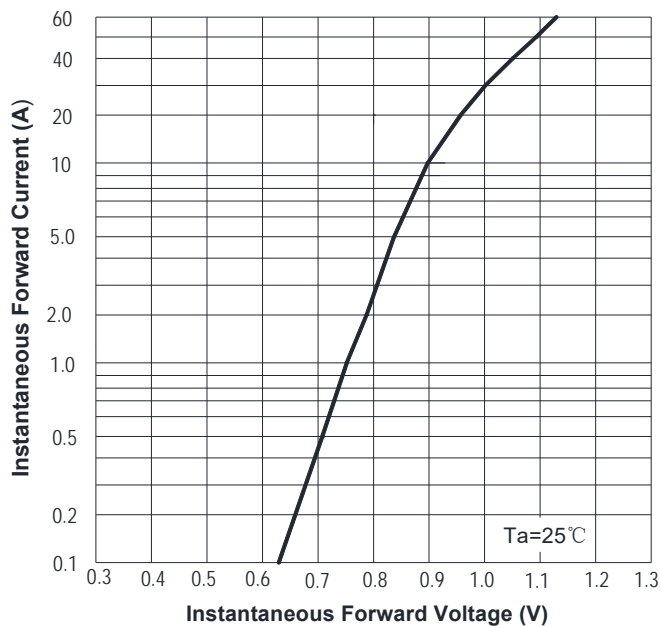
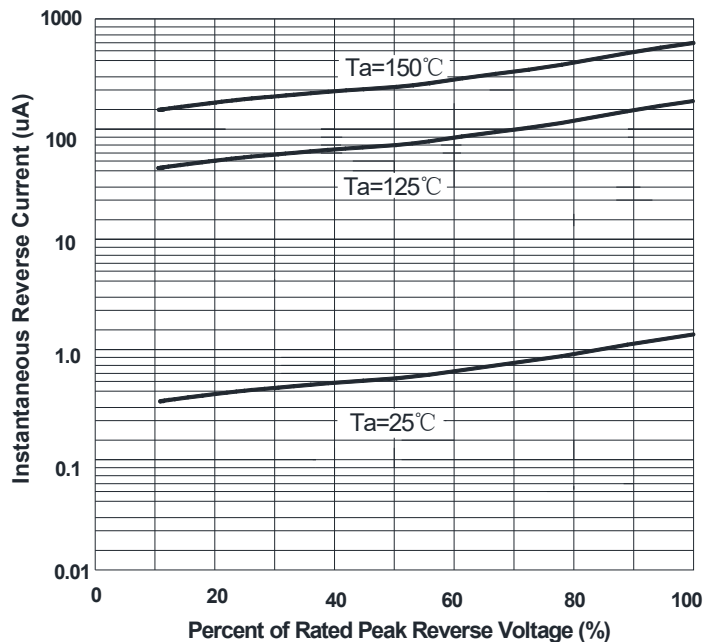


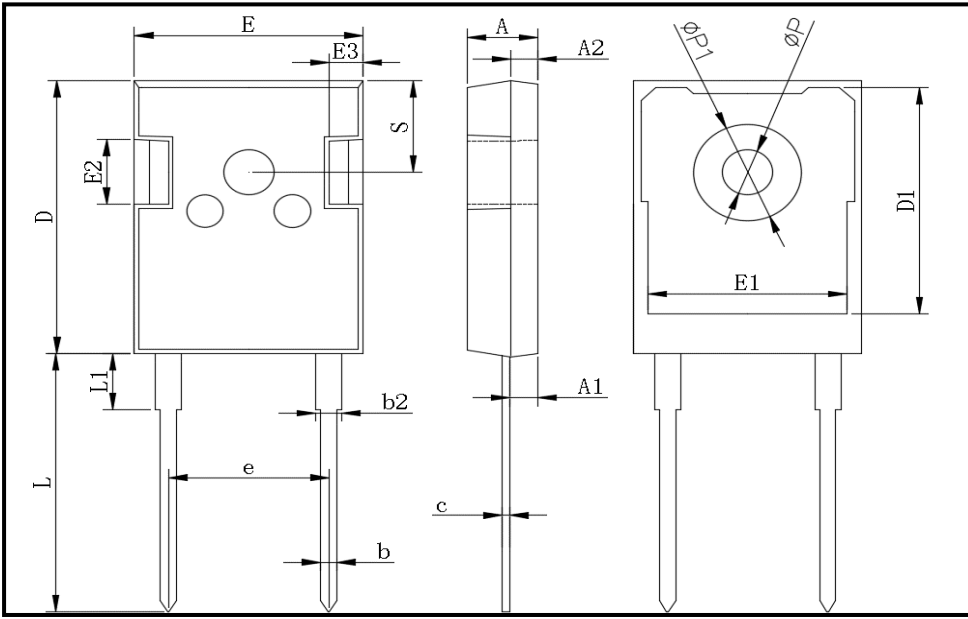
FIG.4: Typical Reverse Characteristics





# 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
phi P	3.40	3.80
phi P1	-	7.30
S	6.15 TYP	



## 60EPS12 THRU 60EPS16

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