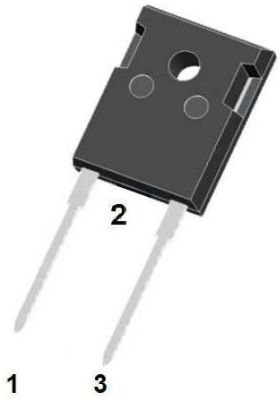
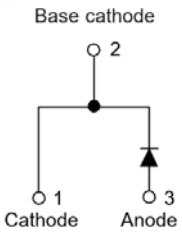
General Purpose Rectifier Diodes





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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	60EPS12	60EPS16	60EPS19
Device marking code			60EPS12	60EPS16	60EPS19
Repetitive Peak Reverse Voltage	V_{RRM}	V	1200	1600	1900
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc (FIG.1)	I_o	A	60		
Surge(Non-repetitive) Forward Current @50Hz half sine-wave, 1 cycle, T_a=25℃	I_{FSM}	A	950		
Current Squared Time @1ms≤t≤10ms Tj=25℃	I^2t	A^2s.	4525		
Storage Temperature	Tstg	℃	-55 ~ +150		
Junction Temperature	Tj	℃	-55 ~ +150		

■Electrical Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	60EPS12	60EPS16	60EPS19
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℃	5		
	I_{RRM2}		$V_{RM}=V_{RRM}$ T_a=125℃	500		
	I_{RRM2}		$V_{RM}=V_{RRM}$ T_a=150℃	1000		

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	60EPS12	60EPS16	60EPS19
Typical Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	℃/W	40		
	Between junction and case	$R_{\theta J-C}$		0.35		

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
60EPS12 THRU 60EPS19	Approximate 6.0	30	360	1800	Tube

■Characteristics (Typical)

FIG.1: Io-TC Curve

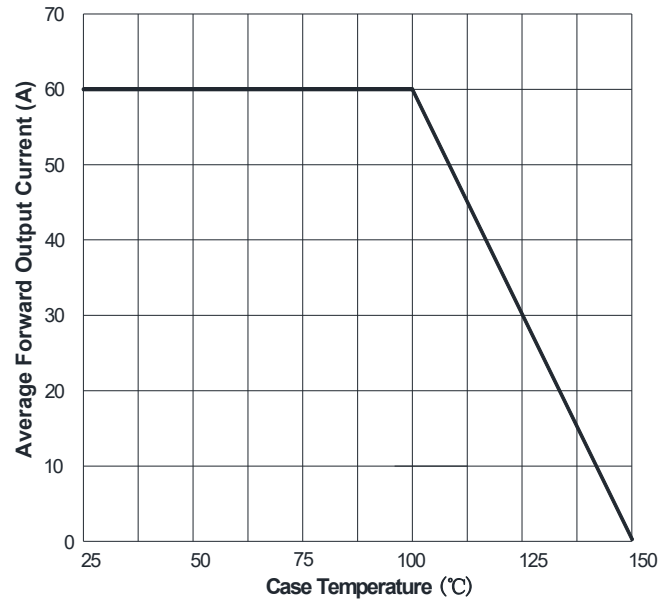


FIG2:Surge Forward Current Capability

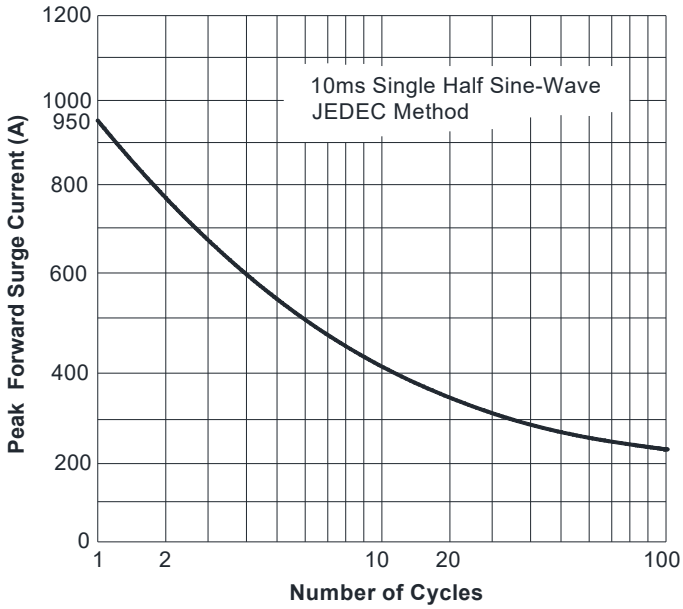


FIG3: Typical Forward Voltage

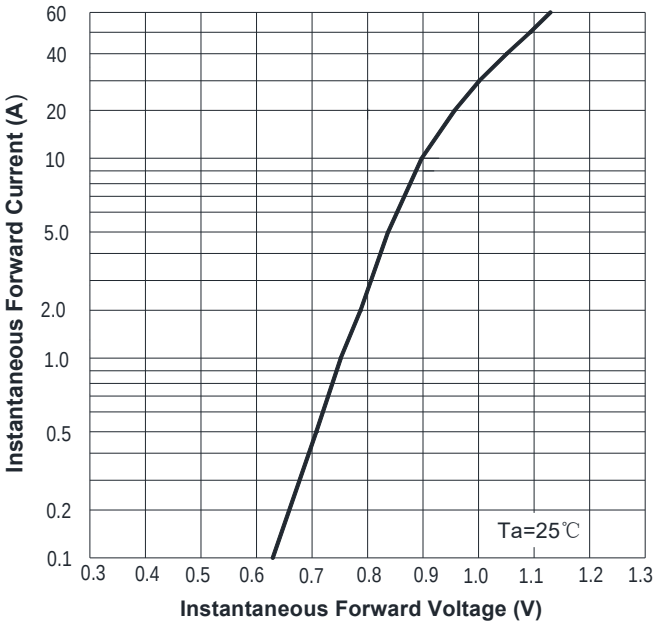
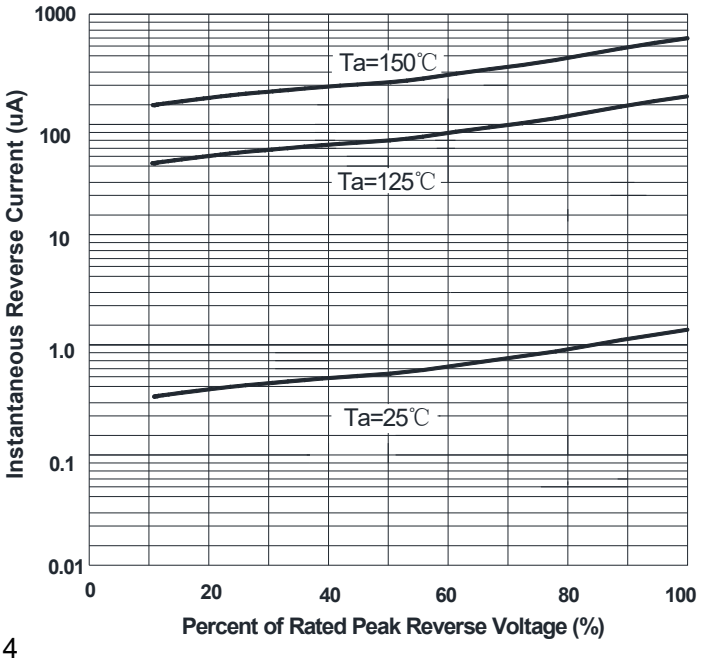
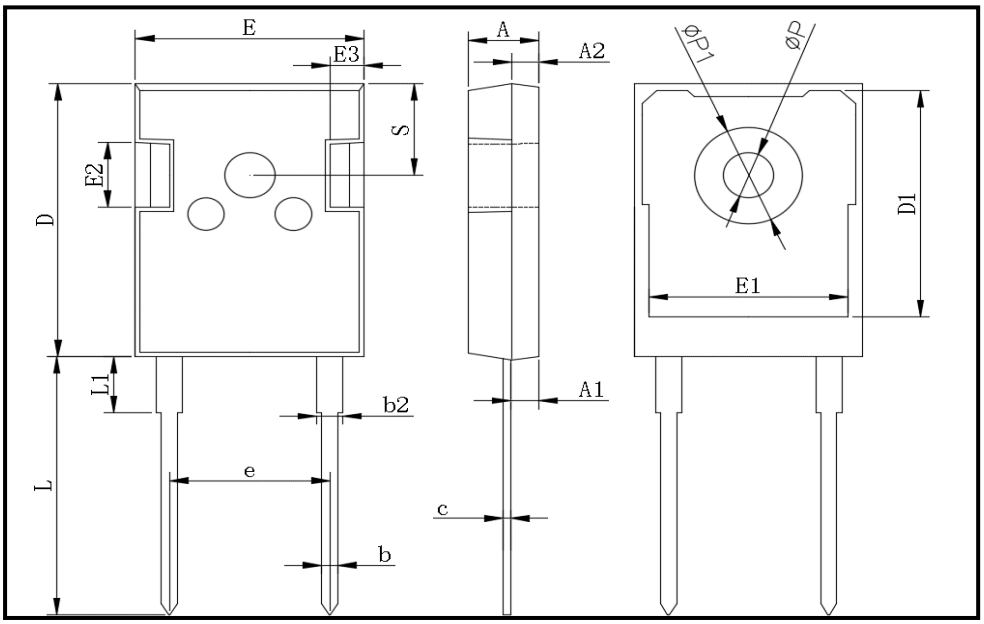


FIG.4: Typical Reverse Characteristics



■ 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	

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