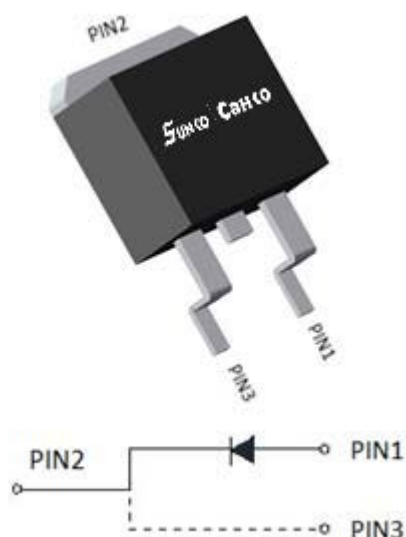


General Purpose Rectifier Diodes



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 260 °C max. 10 s, per JESD 22-B106

Typical Application

- Input rectification

Mechanical Data

- **Package:** TO-263
Molding compound meets UL 94 V-0 flammability rating, -compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

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

PARAMETER	SYMBOL	UNIT	30EPSB16
Device marking code			30EPSB16
Repetitive Peak Reverse Voltage per diode	V _{RRM}	V	1600
Average Rectified Output Current @60Hz half sine-wave, R-load, T _c (FIG.1)	I _o	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _j =25°C per diode	I _{FSM}	A	275
Current Squared Time @1ms≤t≤8.3ms T _j =25°C, rating of per diode	I ² t	A ² s	313
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	30EPSB16
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =30.0A T _j =25°C	1.3
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	V _{RM} =V _{RRM} T _j =25°C	5
			V _{RM} =V _{RRM} T _j =125°C	500
Typical junction capacitance per diode	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	60

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

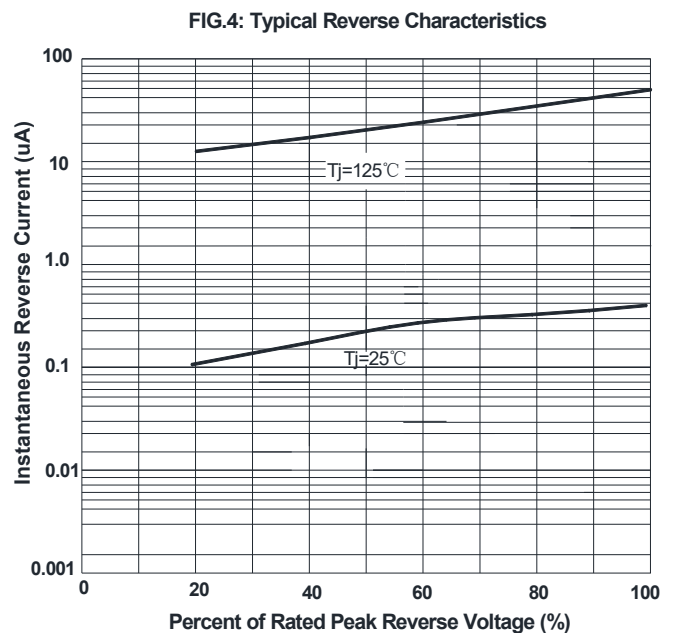
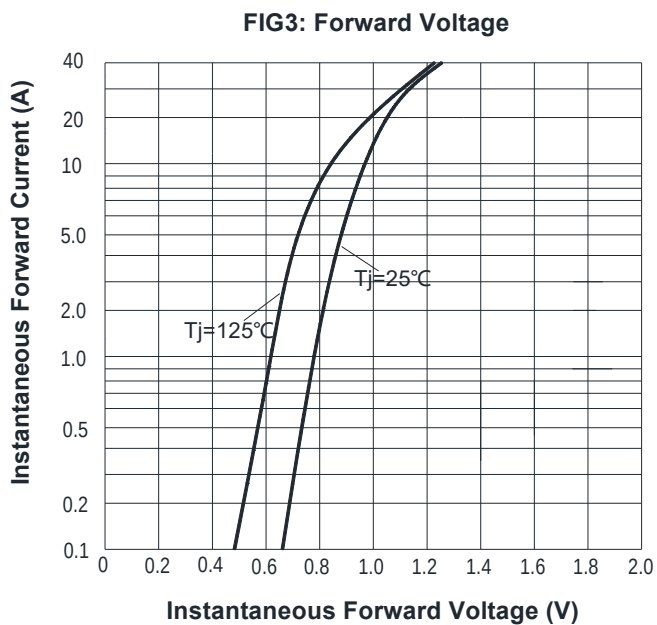
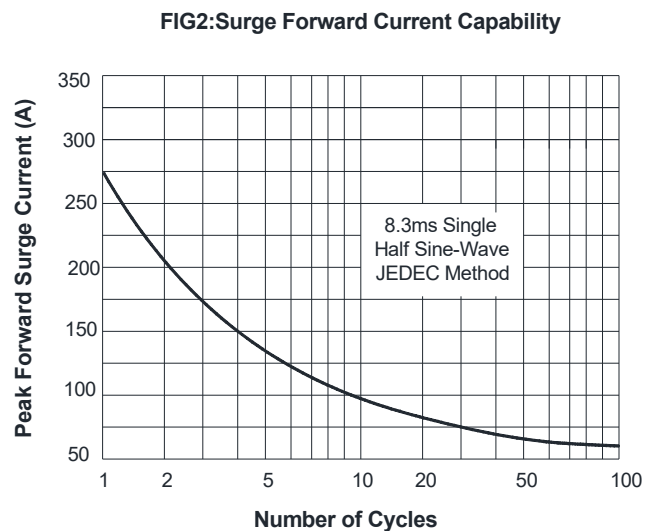
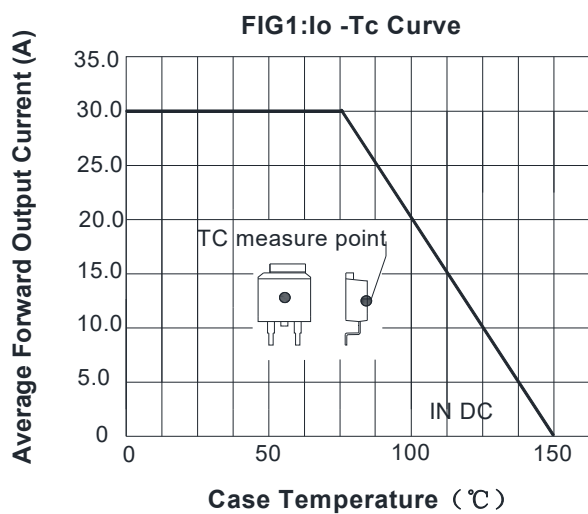
PARAMETER	SYMBOL	UNIT	30EPSB16
Thermal Resistance	R _{θJ-C}	°C/W	2.0

■ Ordering Information (Example)

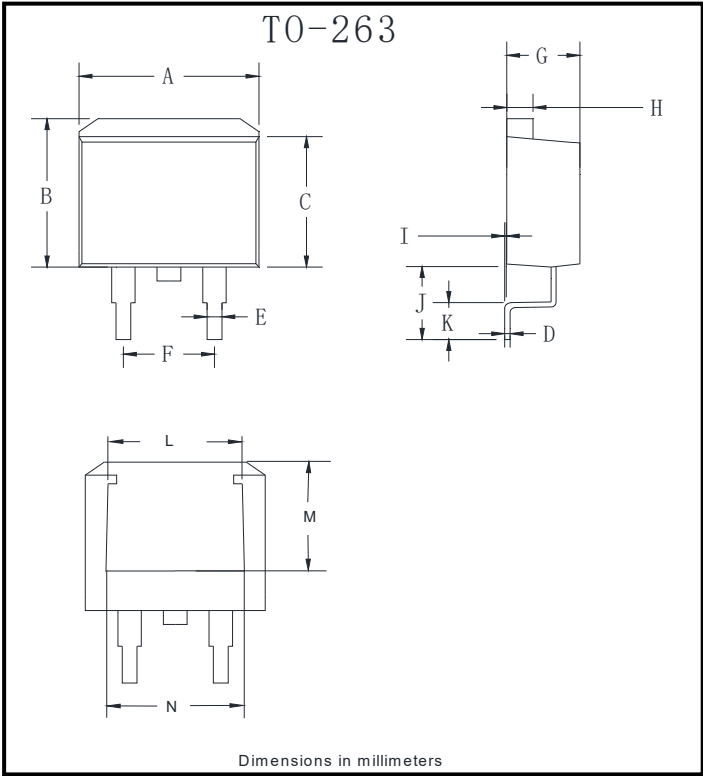
PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
30EPSB16	1.503	800	/	40000	Reel

■ Characteristics (Typical)

b

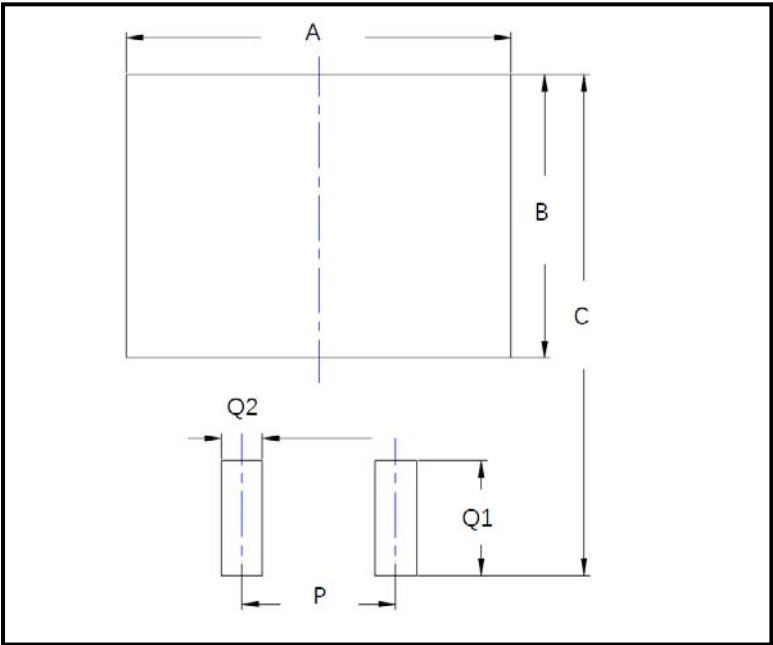


■Outline Dimensions



TO-263		
Dim	Min	Max
A	9.85	10.45
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E	0.68	0.94
F	4.55	5.6
G	4.4	4.8
H	1.14	1.4
I	0	0.2
J	4.9	6.05
K	1.79	2.79
L	7.3	7.9
M	6.2	6.8
N	7.6	8.2

■ Suggested Pad Layout



Dim	Millimeters
A	12.7
B	9.4
C	16.6
P	5.08
Q1	3.8
Q2	1.35

Disclaimer

The information presented in this document is for reference only. Shanghai Sunco Electronics 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), Russiansunco 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.russiansunco.com](http://www.russiansunco.com) , or consult your nearest Russiansunco's sales office for further assistance.