

# S3JBHE3-TP Datasheet

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DiGi Electronics Part Number	S3JBHE3-TP-DG
Manufacturer	<a href="#">Micro Commercial Co</a>
Manufacturer Product Number	S3JBHE3-TP
Description	DIODE GEN PURP 600V 3A DO214AA
Detailed Description	Diode 600 V 3A Surface Mount DO-214AA (SMB)

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## Purchase and inquiry

Manufacturer Product Number:

S3JBHE3-TP

Series:

-

Technology:

Standard

Current - Average Rectified (Io):

3A

Speed:

Standard Recovery >500ns, > 200mA (Io)

Capacitance @ Vr, F:

40pF @ 4V, 1MHz

Qualification:

AEC-Q101

Package / Case:

DO-214AA, SMB

Operating Temperature - Junction:

-55°C ~ 150°C

Manufacturer:

Micro Commercial Co

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

600 V

Voltage - Forward (Vf) (Max) @ If:

1.15 V @ 3 A

Current - Reverse Leakage @ Vr:

10 µA @ 600 V

Grade:

Automotive

Mounting Type:

Surface Mount

Supplier Device Package:

DO-214AA (SMB)

Base Product Number:

S3J

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

## Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Low Forward Voltage Drop and High Current Capability
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 10°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
S3ABHE3	S3AB	50V	35V	50V
S3BBHE3	S3BB	100V	70V	100V
S3DBHE3	S3DB	200V	140V	200V
S3GBHE3	S3GB	400V	280V	400V
S3JBHE3	S3JB	600V	420V	600V
S3KBHE3	S3KB	800V	560V	800V
S3MBHE3	S3MB	1000V	700V	1000V

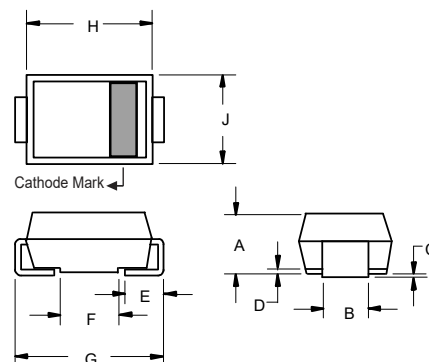
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_O$	3.0A	$T_T=75^\circ\text{C}$
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	100A 200A	8.3ms, Half Sine Wave 1ms, Square Wave
Repetitive Peak Forward Surge Current	$I_{FRM}$	150A	300us Surge Duration 900 ms Between Surges
Maximum Instantaneous Forward Voltage	$V_F$	1.15V	$I_{FM}=3.0A$ ; $T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 250 $\mu\text{A}$	$T_J=25^\circ\text{C}$ ; $T_J=125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	40pF	Measured at 1.0MHz $V_R=4.0V$

- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.  
2. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

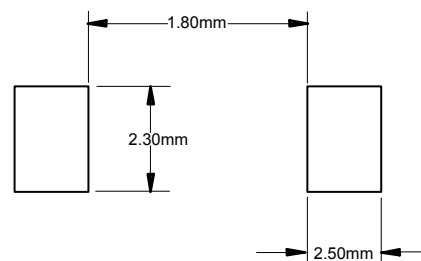
# 3 Amp Glass Passivated Rectifier 50 to 1000 Volts

## SMB (DO-214AA)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

## Suggested Solder Pad Layout



### Curve Characteristics

Fig. 1 - Forward Current Derating Curve

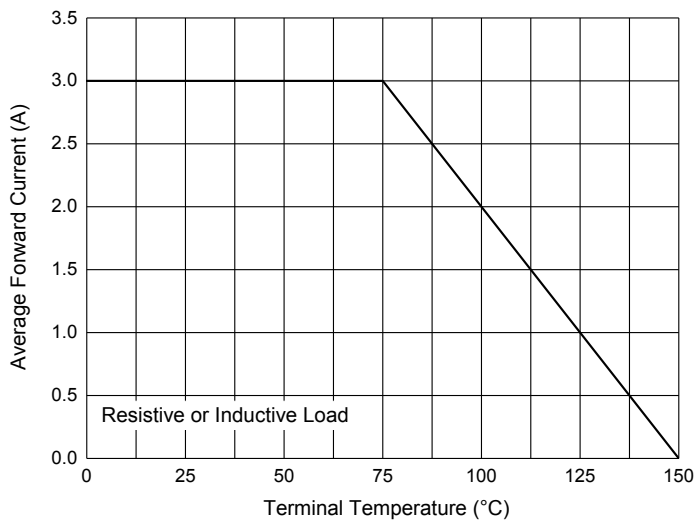


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

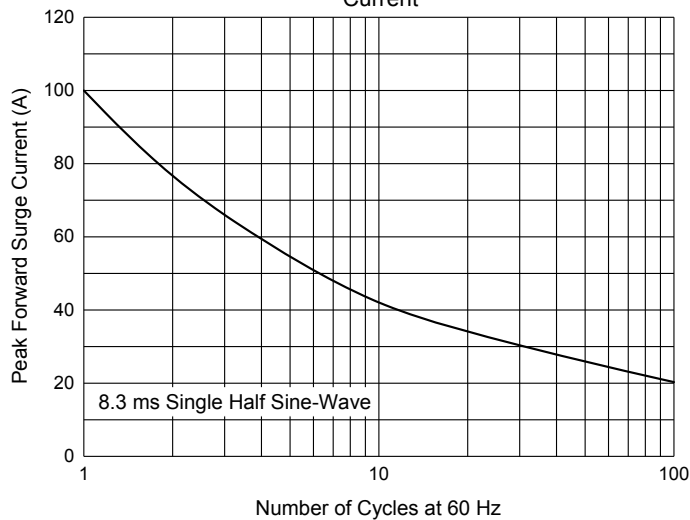


Fig. 3 - Typical Instantaneous Forward Characteristics

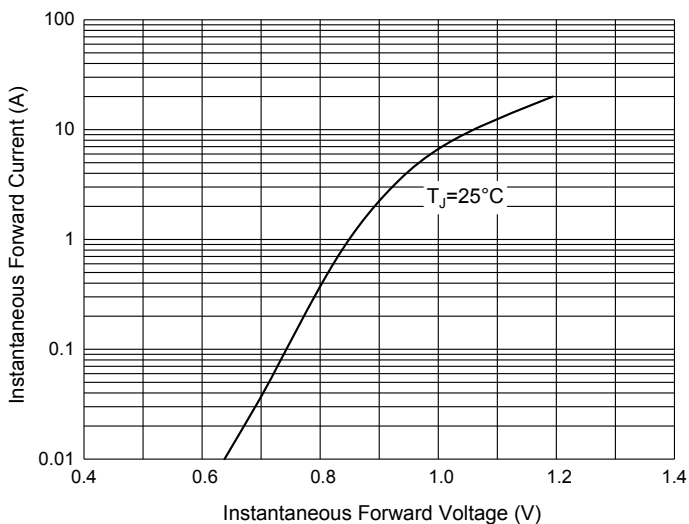
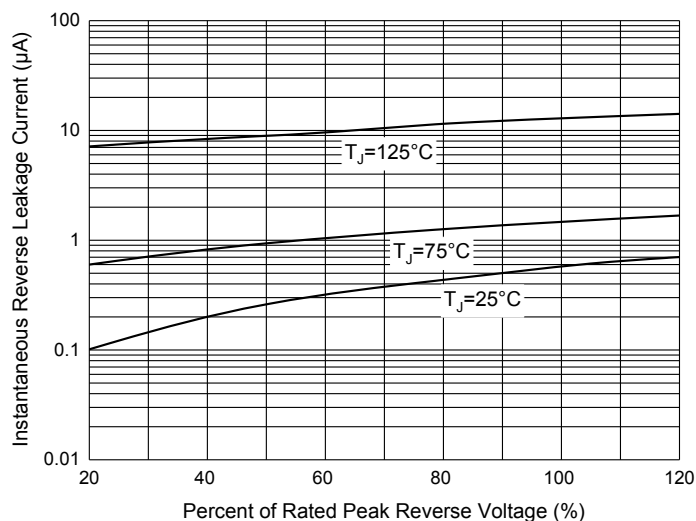


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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