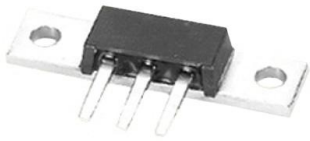


FST83100M Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	FST83100M-DG
Manufacturer	GeneSiC Semiconductor
Manufacturer Product Number	FST83100M
Description	DIODE MOD SCHOTT 100V 80A D61-3M
Detailed Description	Diode Array 1 Pair Common Cathode 100 V 80A (DC) Chassis Mount D61-3M

This model FST83100M is available at DiGi Electronics.

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Purchase and inquiry

Manufacturer Product Number:

FST83100M

Series:

-

Diode Configuration:

1 Pair Common Cathode

Voltage - DC Reverse (Vr) (Max):

100 V

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

840 mV @ 80 A

Current - Reverse Leakage @ Vr:

1.5 mA @ 20 V

Mounting Type:

Chassis Mount

Supplier Device Package:

D61-3M

Manufacturer:

GeneSIC Semiconductor

Product Status:

Obsolete

Technology:

Schottky

Current - Average Rectified (Io) (per Diode):

80A (DC)

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Operating Temperature - Junction:

-55°C ~ 150°C

Package / Case:

D61-3M

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8541.10.0080

ECCN:

EAR99



FST8345M thru FST8

Silicon Power Schottky Diode

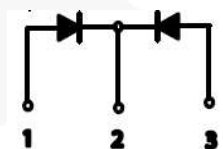
$$V_{RRM} = 45 \text{ V}$$

$$I_{F(AV)} = 80 \text{ A}$$

Features

- High Surge Capability
- Types from 45 V to 100V V_{RRM}
- Not ESD Sensitive

D61-3M Package



Maximum ratings, at $T_j = 25 \text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	FST8345M	FST8360M	FST8380M	FST83100M	Unit
Repetitive peak reverse voltage	V_{RRM}		45	60	80	100	
RMS reverse voltage	V_{RMS}		32	42	56	70	
DC blocking voltage	V_{DC}		45	60	80	100	V
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

Electrical characteristics, at $T_j = 25 \text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	FST8345M	FST8360M	FST8380M	FST83100M	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 125 \text{ }^\circ\text{C}$	80	80	80	80	A
Peak forward surge current (per leg)	I_{FSM}	$t_p = 8.3 \text{ ms}$, half sine	600	600	600	600	A
Maximum instantaneous forward voltage (per leg)	V_F	$I_{FM} = 40 \text{ A}$, $T_j = 25 \text{ }^\circ\text{C}$	0.72	0.78	0.84	0.84	V
Maximum Instantaneous reverse current at rated DC blocking voltage (per leg)	I_R	$T_j = 25 \text{ }^\circ\text{C}$	1	1	1	1	mA
		$T_j = 100 \text{ }^\circ\text{C}$	10	10	10	10	
		$T_j = 150 \text{ }^\circ\text{C}$	30	30	30	30	

Thermal characteristics

Thermal resistance, junction - case (per leg)	$R_{\theta JC}$		1.10	1.10	1.10	1.10	$^\circ\text{C/W}$
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FST8345M thru FST8

Figure .1- Typical Forward Characteristics

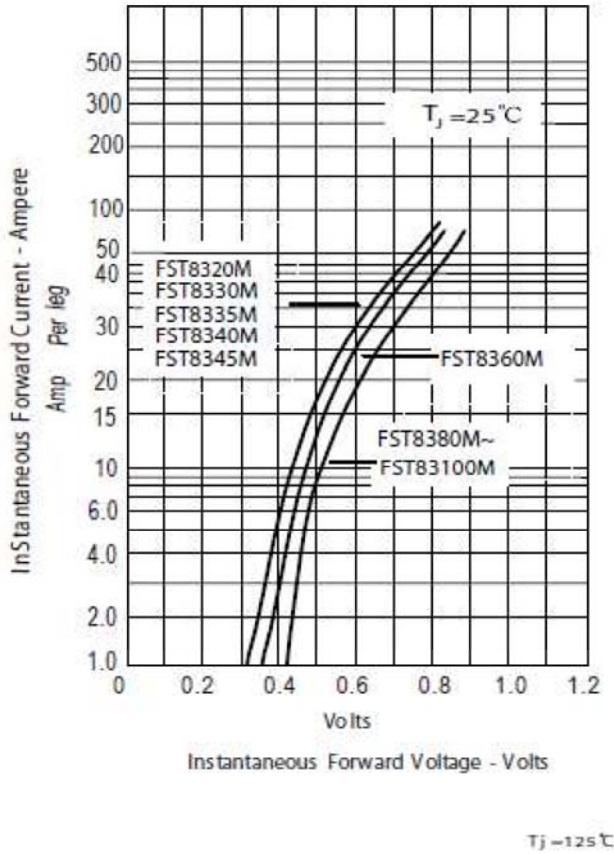


Figure .2- Forward Derating Curve

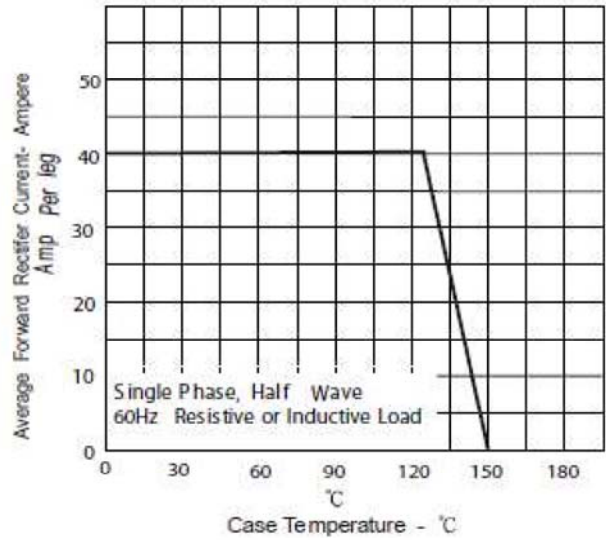


Figure.3-Peak Forward Surge Current

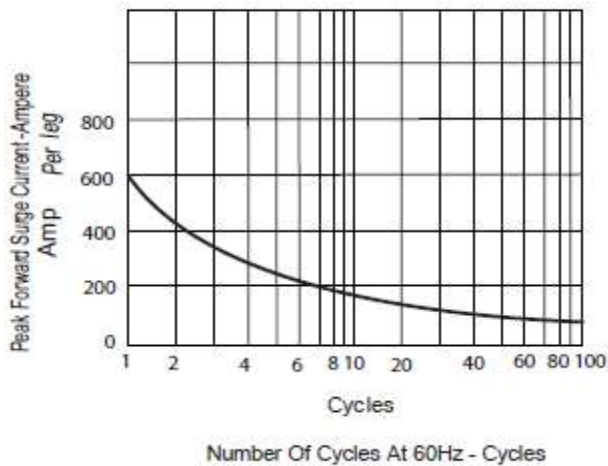
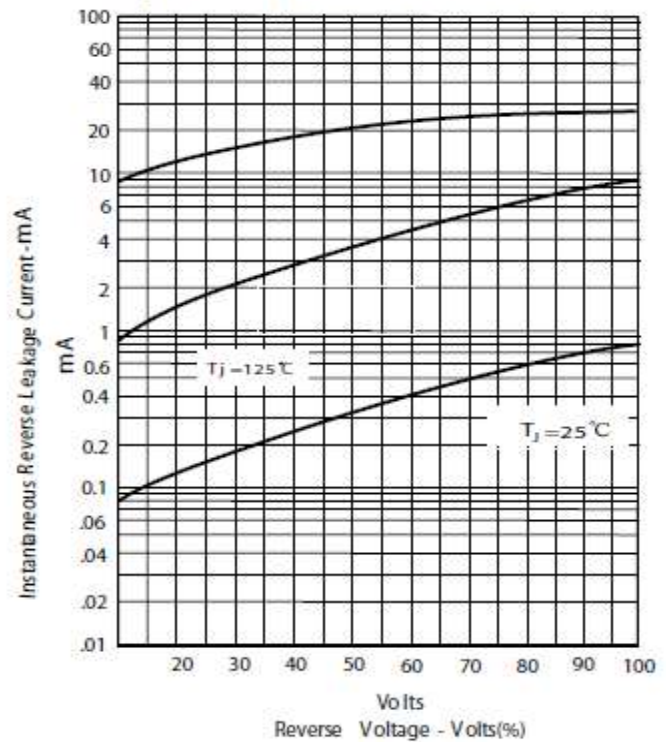


Figure .4 Typical Reverse Characteristics

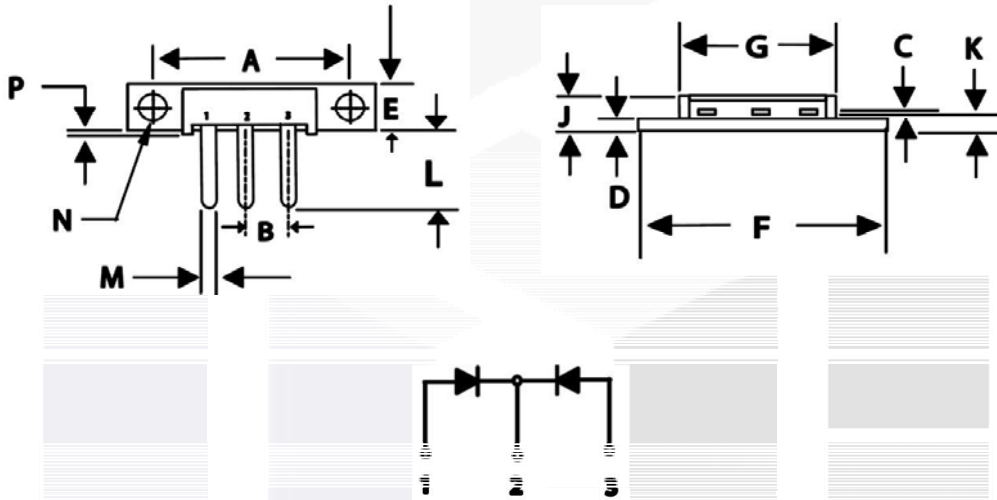




FST8345M thru FST8

Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIMENSIONS					
DIM	IN CHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.180	1.195	29.97	30.35	
B	.200	NOM	5.08	NOM	2PL
C	.027	.037	0.69	0.94	
D	.088	.098	2.24	2.49	
E	.350	.370	8.89	9.40	
F	1.490	1.510	37.85	38.35	
G	.695	.715	17.65	18.16	
J	.24	.26	6.1	6.6	
K	.115	.135	2.92	3.43	
L	.457	.477	11.61	12.12	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	∅
P	.015	.025	0.38	0.64	

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