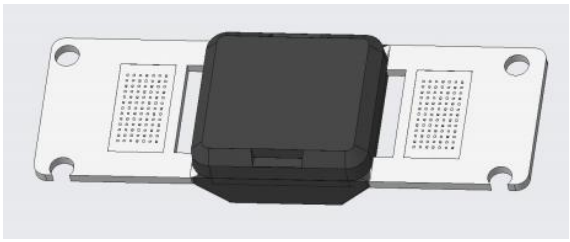
Technical Data
Data Sheet N2649. REV.-

GFP3045TS Power Schottky Module Bypass Diode



GFP

Features

- **Low thermal resistance**
- **Lower forward voltage drop, low power loss**
- **Isolate Package design, ideal for heat dispersion**
- **High forward current capability**
- **Trench MOS Schottky technology**
- **Excellent anti-humidity**
- **Low profile package**
- **High forward surge capability**
- **All SMC parts are traceable to the wafer lot**
- **Additional electrical and life testing can be performed upon request**

Mechanical Data

- **Case: GFP**
- **High temperature soldering guaranteed**
- **Heated-tool welding 260℃,10 seconds**
- **Marking Code: GFP3045TS**

Maximum Ratings(limiting values, at 25 °C unless otherwise specified)

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	45	V
Average Rectified Forward Current	$I_{F\ (AV)}$	Tc=125°C, In DC	30	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	350	A
Rating for fusing (t<8.3ms)	I^2t	T_J = 25 °C	750	A^2sec

Electrical Characteristics

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 30A, Pulse, T_J = 25 °C	0.49	0.55	V
Reverse Current*	I_{R1}	@V_R = rated V_R T_J = 25 °C	0.02	0.20	mA
	I_{R2}	@V_R = rated V_R T_J = 100 °C	-	20	mA
	I_{R3}	@V_R = rated V_R T_J = 125 °C	25	55	mA
Junction Capacitance	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	3680	-	pF

* Pulse width < 300 μs, duty cycle < 2%

Technical Data
Data Sheet N2649. REV.-

Thermal-Mechanical Specifications(Ta=25℃ Unless otherwise specified)

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature IN DC Forward Mode, without reverse bias, t ⩽1 h	T_J	-	-55 to +200	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	-	1.5	°C/W

Ratings and Characteristics Curves

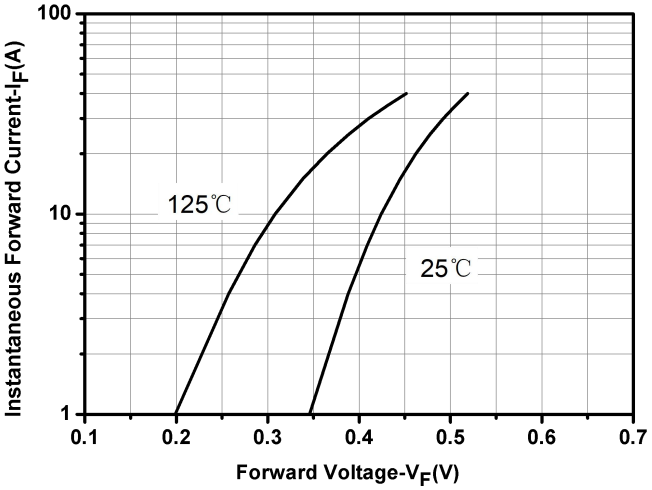


Fig.1-Typical Forward Voltage Characteristics

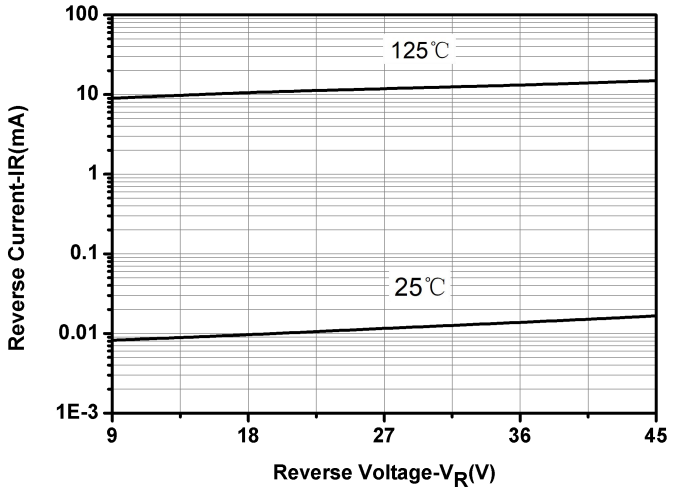


Fig.2-Typical Reverse Characteristics

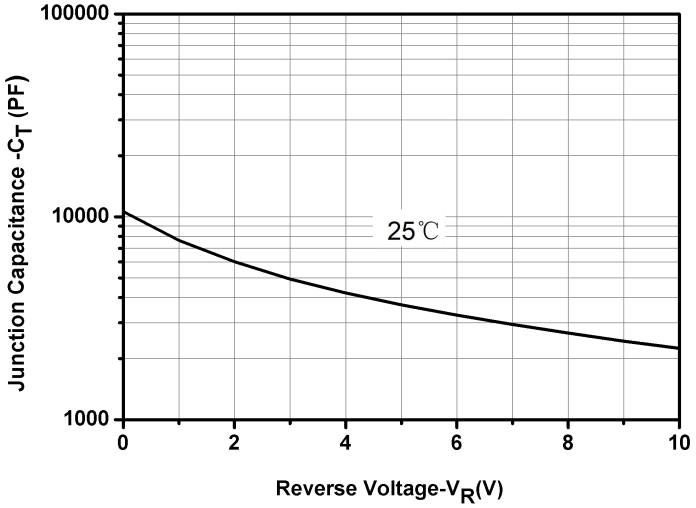


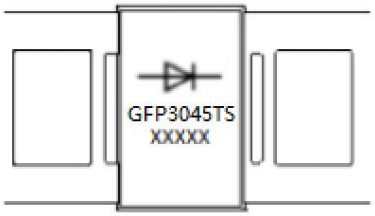
Fig.3-Capacitance vs. Reverse Voltage

Technical Data
Data Sheet N2649. REV.-

Ordering Information

Device	Package	Shipping
GFP3045TS	GFP	36pcs/Tube

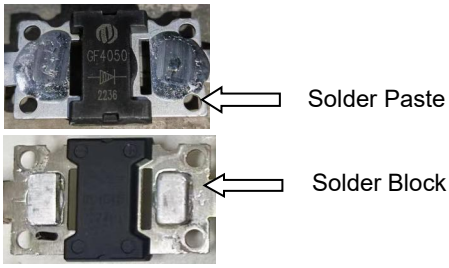
Marking Diagram



Where XXXXX is YYWWL

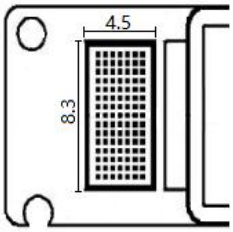
GFP3045TS	= Device Code
YY	= Year
WW	= Week
L	= Lot Number

Order P/N	Terminals	Additional
GFP3045TS-S1	Tin Plated	None
GFP3045TS-S2	Tin Plated	Solder Paste
GFP3045TS-S3	Tin Plated	Solder Block

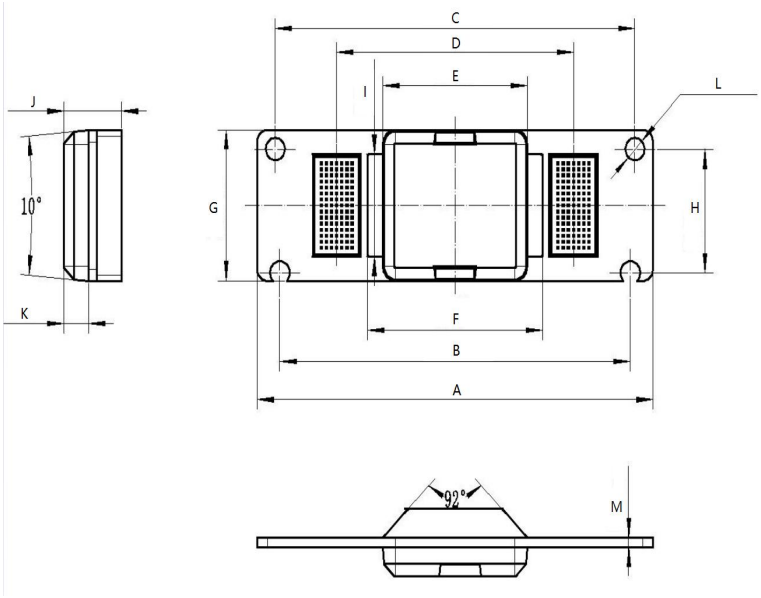


Solder block Specification

The composition of the tin block is Sn50Pb50.
The size of the tin block is 9(-0.3)*4(-0.2)*1(±0.1) mm.
Solder block to be centered,not exceed the flat groove.



Mechanical Dimensions GFP (Millimeters)



Symbol	Dimensions in millimeters		
	Min.	Typical	Max
A	38.2	38.4	
B	33.85	34	34.15
C	34.75	34.9	35.05
D		22.98	
E	13.9	14	
F		17	17.1
G	12.4	12.5	
H	10.08	10.23	10.38
I		8.5	8.6
J	5.5	5.6	5.7
K	2.3	2.4	
L		4-⌀ 1.9	
M	0.78	0.8	0.82

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