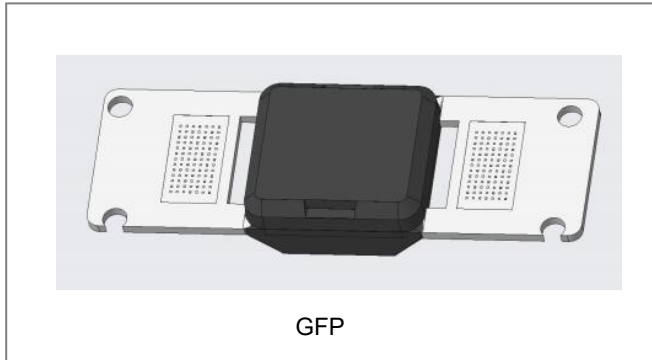


Technical Data
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GFP5045TC Power Modules Schottky Rectifier



Features

- Low thermal resistance
- Lower forward voltage drop, low power loss
- Isolate Package design, ideal for heat dispersion
- High forward current capability
- Excellent anti-humidity
- Trench MOS Schottky technology
- 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°C, 10 seconds
- Marking Code: GFP5045TC

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	$I_{F(AV)}$	$T_C=111^\circ\text{C}$, In DC	50	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	450	A

Electrical Characteristics($T_a=25^\circ\text{C}$ Unless otherwise specified)

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 50A, Pulse, $T_J = 25^\circ\text{C}$	0.46	0.52	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	0.05	0.50	mA
Junction Capacitance	C_T	@ $V_R = 5\text{V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	8.5	-	nF

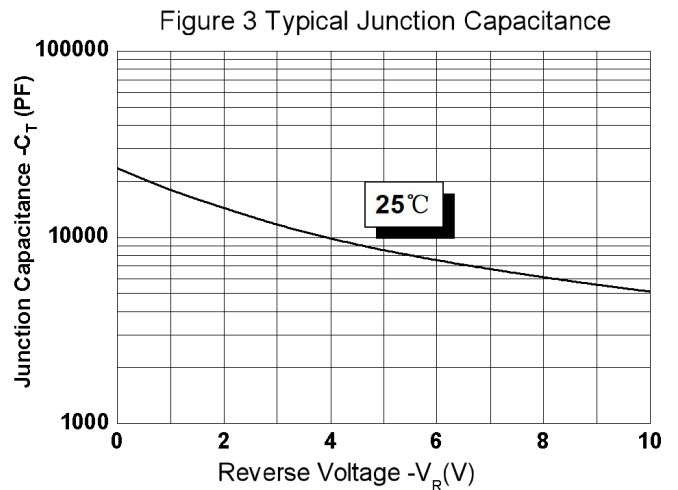
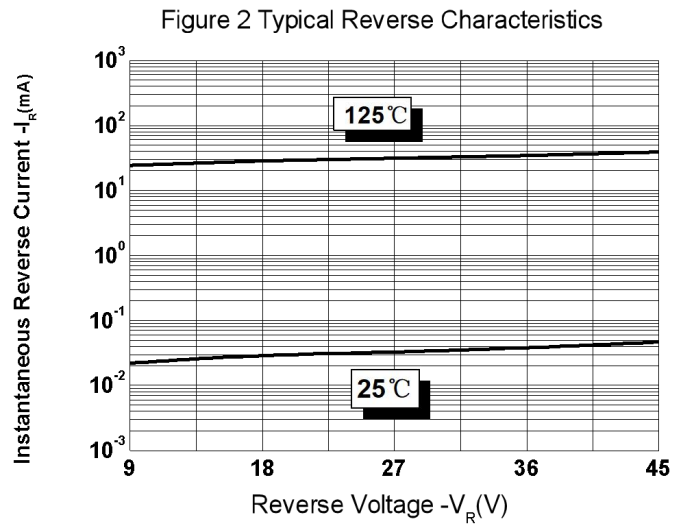
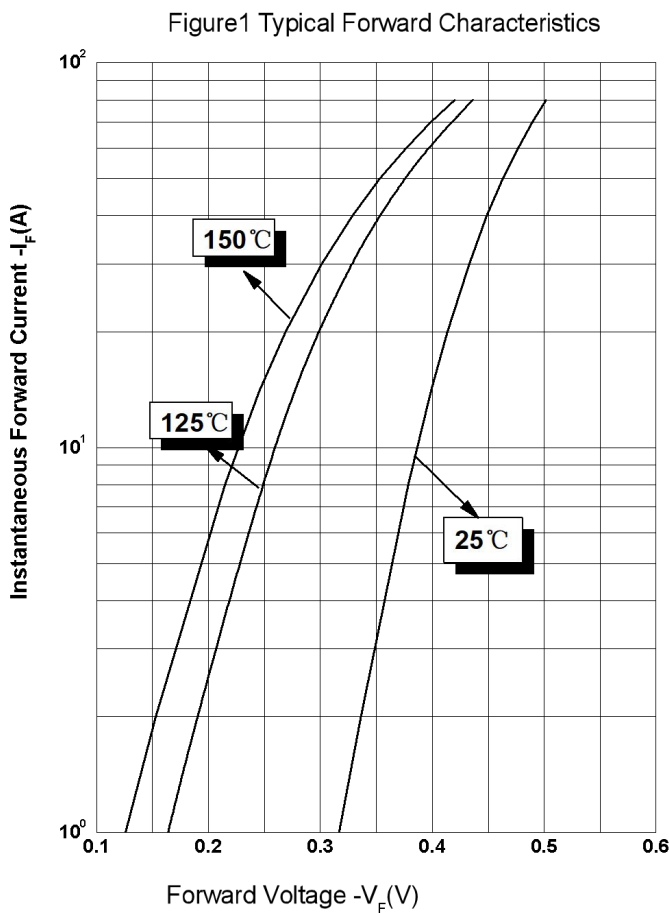
* Pulse width < 300 μs , duty cycle < 2%

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Thermal-Mechanical Specifications(Ta=25°C 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 _{θJC}	-	1.5	°C/W

Ratings and Characteristics Curves

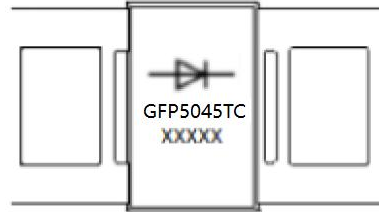


Technical Data
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Ordering Information

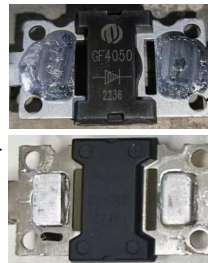
Device	Package	Shipping
GFP5045TC	GFP	36pcs/Tube

Marking Diagram



Where XXXXX is YYWWL
 GFP5045TC = Device Code
 YY = Year
 WW = Week
 L = Lot Number

Order P/N	Terminals	Additional
GFP5045TC-S1	Tin Plated	None
GFP5045TC-S2	Tin Plated	Solder Paste
GFP5045TC-S3	Tin Plated	Solder Block

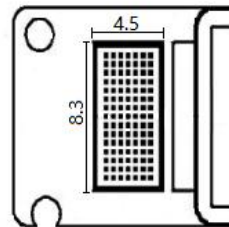


Solder Paste

Solder Block

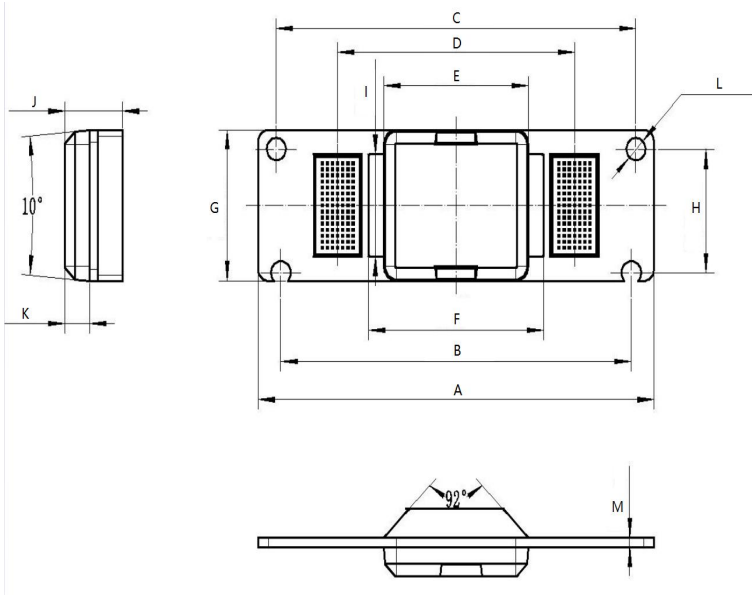
Solder block Specification

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.



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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- \varnothing 1.9	
M	0.78	0.8	0.82

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