

GF5045PC

Technical Data Data Sheet N2456, Rev.A

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GF5045PC Power Schottky Module Bypass Diode

Features

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Schotty Barrier hight diode Low thermal resistance

High forward current capability

High forward surge capability

Excellent anti-humidity Low profile package

Terminals: Tin plated

upon request

Lower forward voltage drop, low power loss Isolate Package design, ideal for heat dispersion

All SMC parts are traceable to the wafer lot

Additional electrical and life testing can be performed



Mechanical Data

- Case: GFM
- Terminals: Copper
- High temperature soldering guaranteed
- Heated-tool welding 260 ℃,10seconds
- Marking Code: GF5045PC

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} Vr	-	45	V
Average Rectified Forward Current	I _{F (AV)}	Tc=105°C, In DC	50	А
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine pulse	450	А

Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 50A, Pulse, T _J = 25 °C	0.49	0.60	V
Reverse Current*	I _{R1}	$@V_R = rated V_R T_J = 25 \ ^\circ C$	0.20	1.0	mA
	I _{R2}	$@V_R$ = rated V _R T _J = 125 °C	115	200	mA
Junction Capacitance	CT	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	4546	-	pF

* Pulse width < 300 μ s, duty cycle < 2%

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Thermal-Mechanical Specifications:

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

Ratings and Characteristics Curve





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Ordering Information

Device	Package	Shipping
GF5045PC	GFM	30pcs / Tube

Marking Diagram



	Additional	Terminals	Order P/N
Solder Paste	None	Tin Plated	GF5045PC-S1
	Solder Paste	Tin Plated	GF5045PC-S2
	Solder Block	Tin Plated	GF5045PC-S3
	None	Nickel Plated	GF5045PC-N1
	Solder Paste	Nickel Plated	GF5045PC-N2
	Solder Block	Nickel Plated	GF5045PC-N3

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Mechanical Dimensions GFM (Millimeters)



Symbol	Dimensions in millimeters			
	Min.	Typical	Max	
A	16.90	17.00	17.10	
В	11.38	11.48	11.58	
С	8.15	8.20	8.25	
D	4.40	4.50	4.60	
E	1.85	1.90	1.95	
F	41.90	42.00	42.10	
G	26.90	27.00	27.10	
Н	14.90	15.00	15.60	
I	22.90	23.00	23.10	
J	10.90	11.00	11.10	
K	-	8.50	-	
L	-	1.50	-	
M	-	Ø 2.50	2.55	
N	5.35	5.50	5.65	
0	6.20	6.30	6.40	
P	4.90	5.00	5.10	
Q	15.95	16.00	16.05	
R	2.80	2.90	3.00	
S	4.75	4.80	4.85	
Т	0.67	0.70	0.73	

Dimension H includes Burrs/cutting residuals.

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