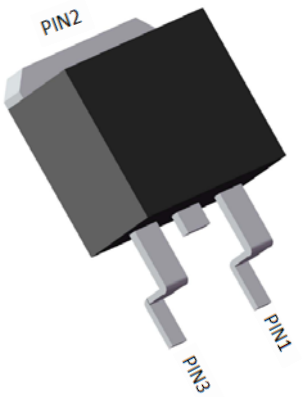
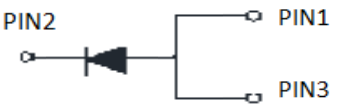
Schottky Diodes





Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260℃

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package**: TO-263
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity**: As marked

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GF3045MG
Device marking code			GF3045MG
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, T_a=25℃	Io	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T_a=25℃	I_{FSM}	A	315
Current Squared Time @1ms≤t≤8.3ms Tj=25℃	I^2t	A^2s	412
Storage Temperature	Tstg	℃	-55 ~ +150
Junction Temperature IN DC Forward Mode-Forward Operations，without reverse bias, t ≤1 h (Fig. 1)①	Tj	℃	-55~+200

NOTE

① Meets the requirements of IEC 61215 Ed. 2 bypass diode thermal test.

■Electrical Characteristics（Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GF3045MG
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=30.0A	0.50
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	mA	VRM=VRRM Ta=25℃	0.1
	IRRM2		VRM=VRRM Ta=100℃	7.0
	IRRM3		VRM =VRRM Ta=125℃	20

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	GF3045MG
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W	2.0

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GF3045MG	Approximate 1.46	50	2000	8000	Tube
GF3045MG	Approximate 1.46	1000	2000	10000	Reel

■Characteristics (Typical)

FIG1:Io -Tc Curve

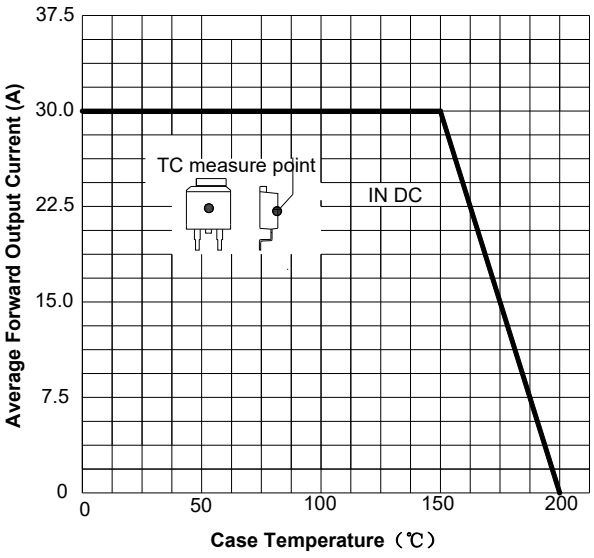


FIG2:Surge Forward Current Capability

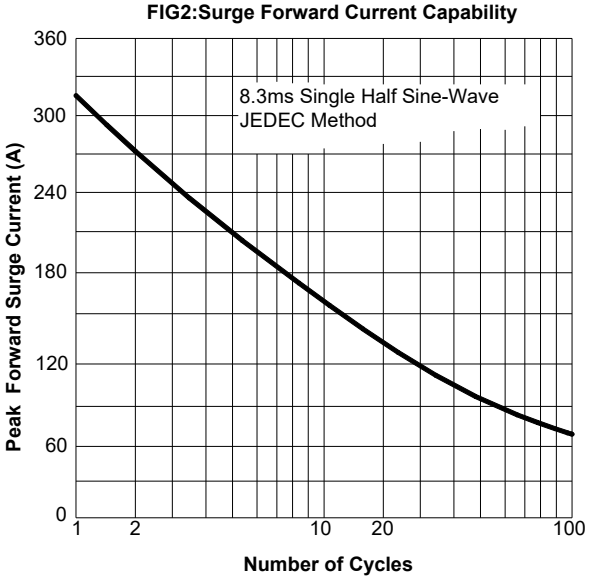


FIG3: Forward Voltage

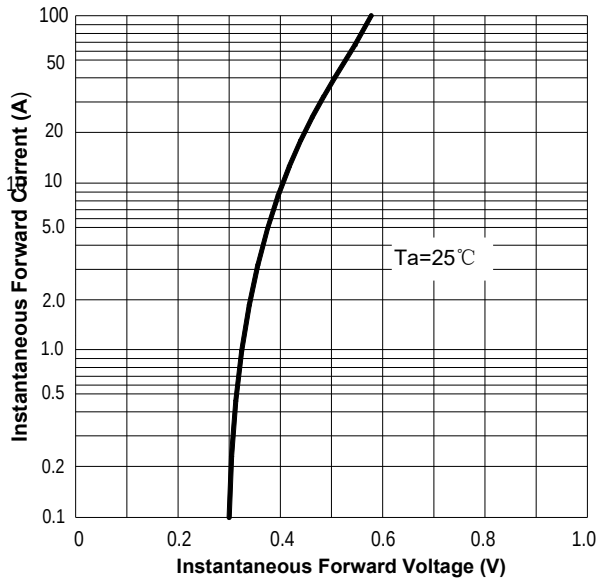
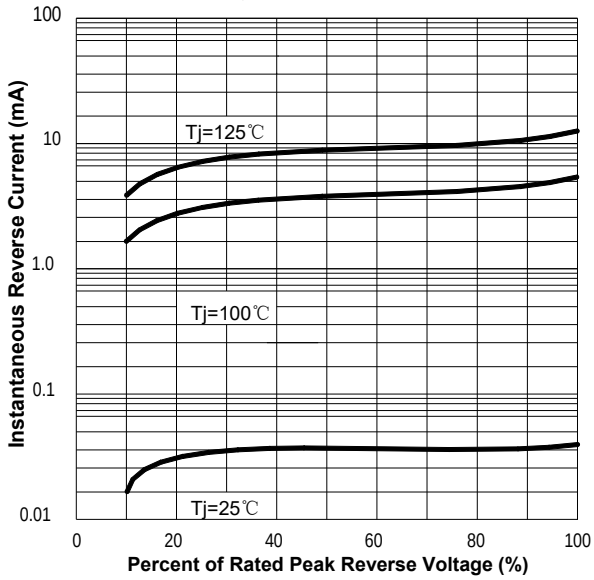
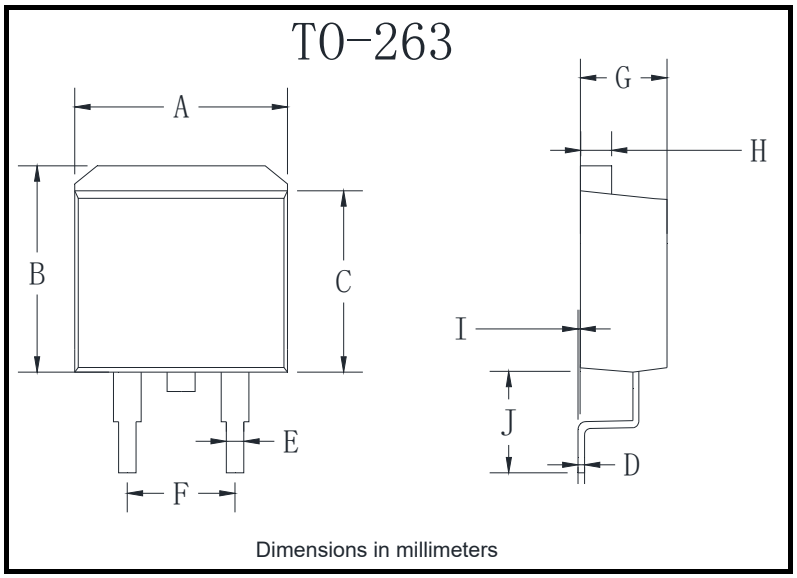


FIG4: Typical Reverse Characteristics



■Outline Dimensions



TO-263		
Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
I	0	0.2
J	4.9	6.05

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