

TRENCH SCHOTTKY RECTIFIER

REVERSE VOLTAGE – 45 Volts
FORWARD CURRENT – 30 Amperes

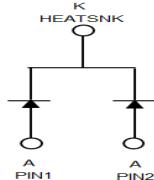
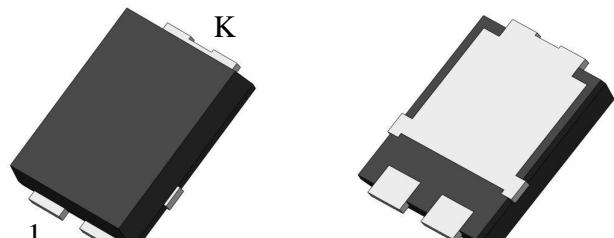
FEATURES

- Rating to 45V
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique

MECHANICAL DATA

- Case Material: "Green" Molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Polarity indicator: As marked on body
- Moisture Sensitivity: Level 1 per J-STD-020C
- Lead free finish, RoHS compliant
- Marking code: G3045CF5
- Weight: 0.989 grams (Approximate)

F5



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum Average rectified forward current @ $T_c = 115^\circ\text{C}$	$I_{(AV)}$	30	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	320	A
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 1)	$I_F = 15\text{A}$	V_F	0.46 0.36	0.52 0.46	V
Reverse leakage current	$V_R = 45\text{V}$	I_R	45 20	500 60	uA mA
Typical junction capacitance (Note 2)		C_J	1400		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	R_{thJ_C} R_{thJ_A}	2 4	°C/W

Note :

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
- (3) Thermal Resistance test performed in accordance with JESD-51.

REV. 1, Sep.-2016, KSHB33

RATING AND CHARACTERISTIC CURVES

G3045CF5

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FIG.1- FORWARD CURRENT DERATING CURVE

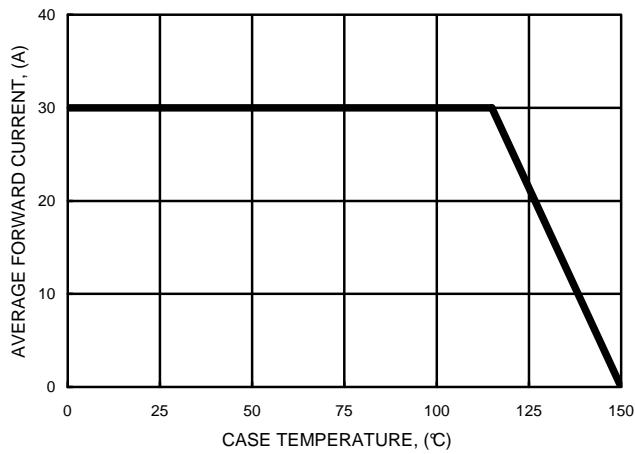


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

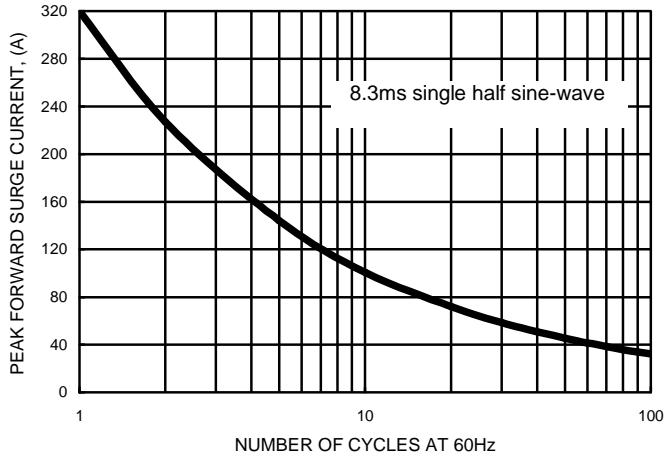


FIG.3- TYPICAL FORWARD CHARACTERISTICS

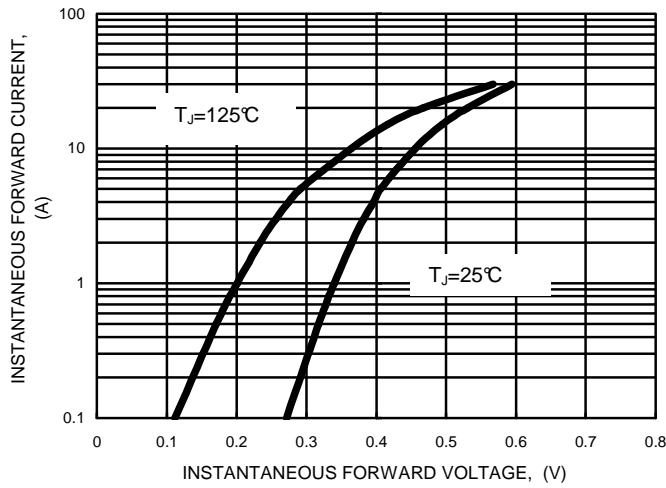


FIG.4- TYPICAL JUNCTION CAPACITANCE

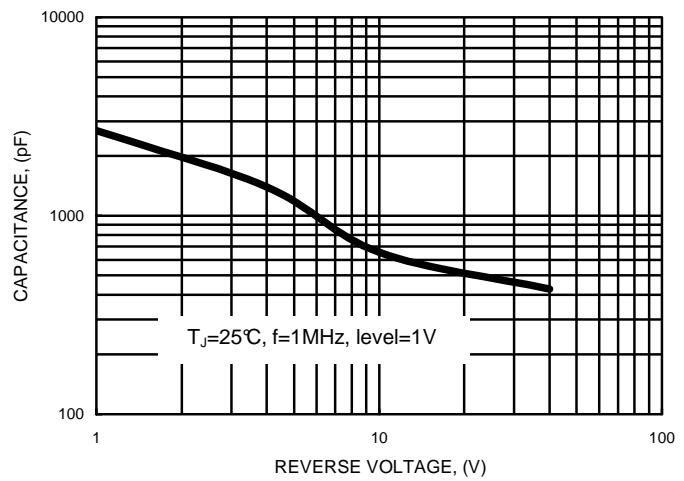
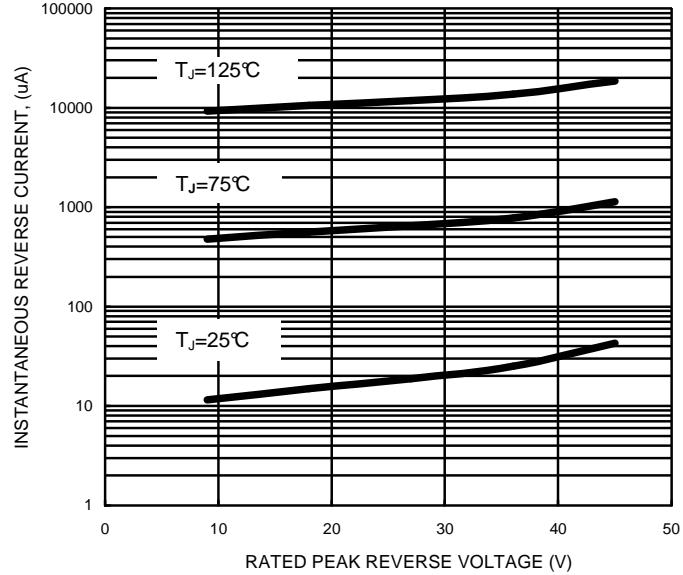


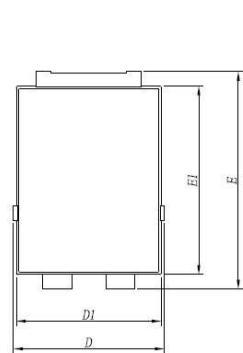
FIG.5- TYPICAL REVERSE CHARACTERISTICS



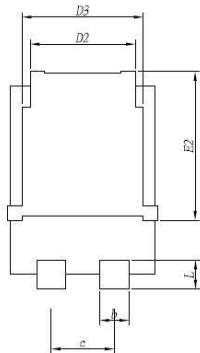
MECHANICAL AND MARKING INFORMATION
G3045CF5

LITEON

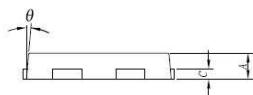
Package Dimension :



Top View



Bottom View

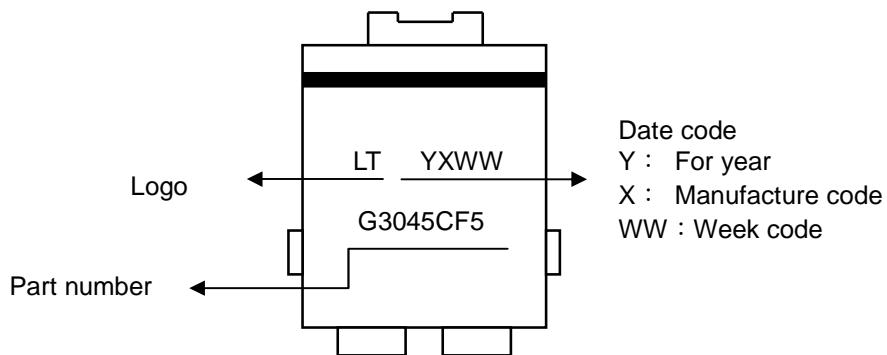


Side View

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DIM.	MIN.	TYP.	MAX
A	1.60	1.80	2.00
b	1.80	2.00	2.30
C	--	0.70	--
D	--	10.40	--
D1	9.80	10.00	10.30
D2	7.00	7.25	7.50
D3	8.10	8.35	8.60
E	14.50	15.00	15.50
E1	12.70	13.00	13.30
E2	10.00	10.25	10.60
e	4.35 REF.		
L	1.70	2.00	2.30
θ	--	--	5°

All dimension in millimeter

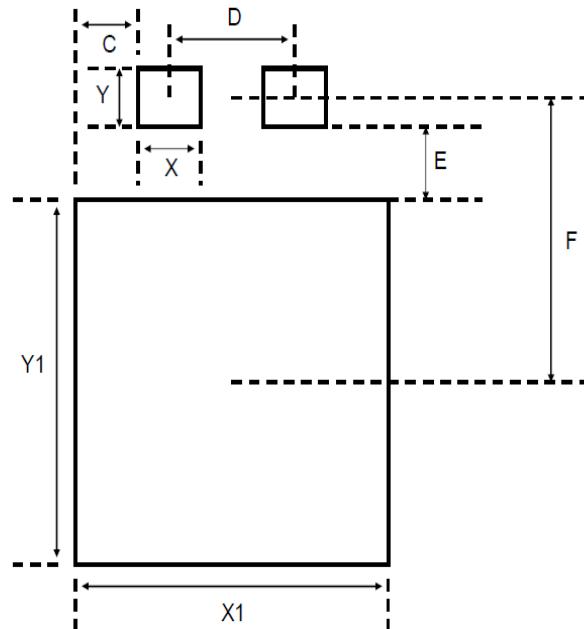
Marking Information :



Packaging Information :

DEVICE	Q'TY/REEL (PCS)	REEL DIA. (INCH)	Q'TY/BOX (PCS)	Q'TY/CARTON (PCS)
G3045CF5	1500	13	1500	10.5K

SUGGESTED PAD LAYOUT :



F5		
DIM.	Millimeter	Inches.
C	2.00	0.079
D	4.35	0.171
E	1.60	0.063
F	8.70	0.343
X	3.00	0.118
X1	11.40	0.449
Y	3.00	0.118
Y1	11.25	0.443

Note: Wave soldering see AN00027

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