

LGE Semiconductors

Power Schottky Rectifier, 160 A
FEATURES

- International standard package SOT-227
- Very low V_F
- Extremely low switching losses
- Low I_{RM} -values

Applications

- Rectifiers in switch mode power Supplies(SMPS)
- Insulated package($V_{ISO}=2500V_{RMS}$)
- Free wheeling diode in low voltage Converters

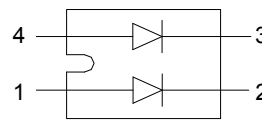
Advantages

- High reliability circuit operation
- Low voltage peaks for reduced Protection circuits
- Low noise switching
- Low losses

$$I_{FAVM}=2 \times 80 \text{ A}$$

$$V_{RRM}=45 \text{ V}$$

$$V_F=0.50 \text{ V}$$



K2


Maximum Ratings

SYMBOL	TEST CONDITIONS	Ratings	UNITS
I_{FRMS}		125	A
I_{FAVM}	$T_C=105^\circ\text{C}$; Rectangular,d=0.5	80	
I_{FAVM}	$T_C=105^\circ\text{C}$; Rectangular,d=0.5; Per device	160	
I_{FSM}	$T_{VJ}=45^\circ\text{C}$; $t_p=10\text{ms}(50\text{Hz})$,sine	1000	
$(dv/dt)_{cr}$		10000	V/us
T_{VJ}		-40~+150	°C
T_{VJM}		150	
T_{stg}		-40~+150	
M_d	Mounting torque(M4)	1.1-1.5/9-13	Nm/lb. in.
	Terminal connection torque(M4)	1.1-1.5/9-13	
Weight	typical	30	g

Electrical and Thermal Characteristic					
SYMBOL	TEST CONDITIONS		Values		UNITS
			typ.	max.	
I_R	$V_R = V_{RRM}; T_{VJ} = 25^\circ\text{C}$ (Pulse Width=5ms, Duty Cycle<2.0%)			1	mA
	$V_R = V_{RRM}; T_{VJ} = 125^\circ\text{C}$ (Pulse Width=5ms, Duty Cycle<2.0%)			120	
V_F	$I_F = 80\text{A}; T_{VJ} = 125^\circ\text{C}$			0.50	V
	$I_F = 80\text{A}; T_{VJ} = 25^\circ\text{C}$			0.58	
	$I_F = 160\text{A}; T_{VJ} = 125^\circ\text{C}$			0.65	
R_{thJC}	Junction to case	Par leg		0.9	$^\circ\text{C}/\text{W}$
		Total		0.45	
R_{thCH}			0.14		

Ordering Information Tabel

Device code	LG	K2	S	160	-	45
	①	②	③	④		⑤

- ① LGE's power module
- ② "K2" Circuit configuration (2 separate diodes ,parallel pin-out)
- ③ "S" for Schottky rectifier
- ④ Maximum average forward current (160A)
- ⑤ Voltage rating (45 = 45V)

DIMENSIONS in millimeters

