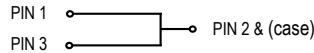




VOLTAGE RANGE  
600Volts  
CURRENT  
60 Ampere

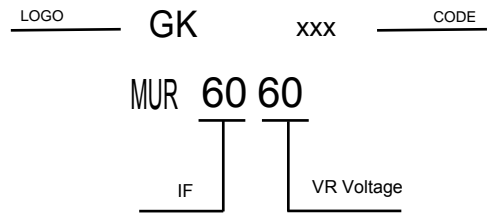
## FEATURES

- EPI wafer
- Low VF and soft recovery characteristic
- Low power loss
- For PFC(DCM/CCM) operation
- Lead free in compliance with EU RoHS 2011/65/EU directive



## MECHANICAL DATA

- Circuit figure: Single positive
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

RATINGS	SYMBOL	MUR6060	UNIT
Maximum repetitive reverse voltage	VRRM	600	V
Maximum RMS voltage	VRMS	420	V
Maximum DC blocking voltage	VDC	600	V
Maximum average forward current	I <sub>AV</sub>	60	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	560	A
Typical thermal resistance per diode (Note 1)	R <sub>θ-JC</sub>	1.5	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +175	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

Notes: 1. Thermal resistance from junction to case.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Instantaneous forward voltage per diode	V <sub>F</sub>	I <sub>F</sub> = 60A      T <sub>J</sub> =25°C	-	1.75	2.00	V
		I <sub>F</sub> = 60A      T <sub>J</sub> =125°C	-	-	1.80	V
Reverse current per diode	I <sub>R</sub>	V <sub>R</sub> =600V T <sub>J</sub> =25°C T <sub>J</sub> =125°C	-	-	50 500	uA
Reverse recovery time	T <sub>RR</sub>	I <sub>F</sub> = 0.5A I <sub>R</sub> =1.0A I <sub>RR</sub> =0.25A T <sub>J</sub> =25°C	-	55	65	ns

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

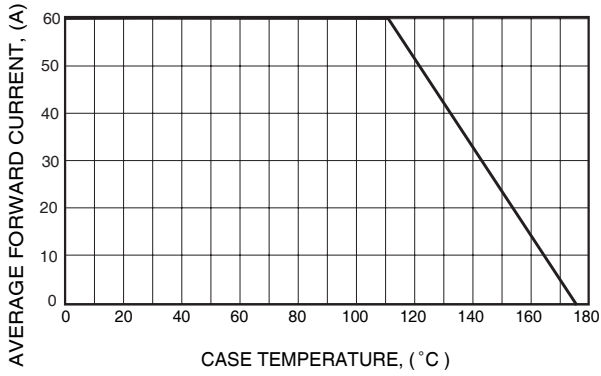


FIG.2-TYPICAL FORWARD CHARACTERISTICS

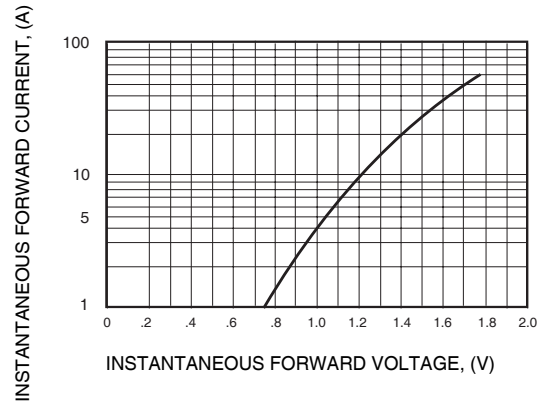


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

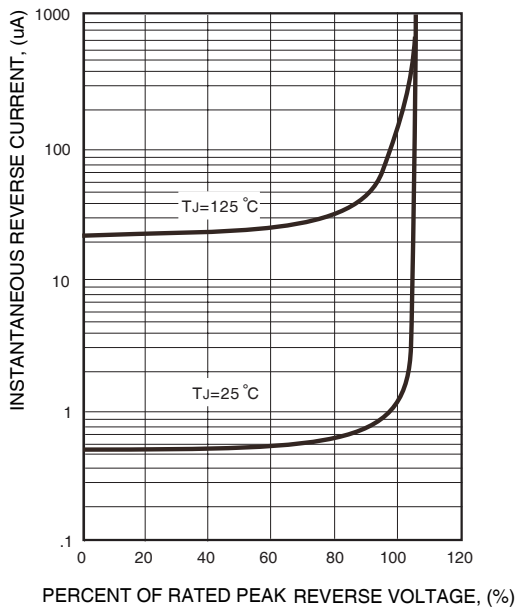
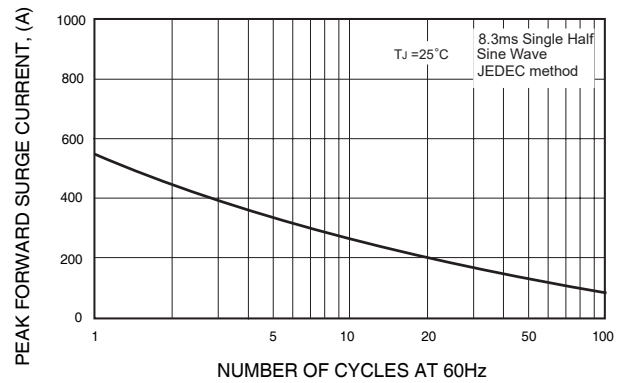
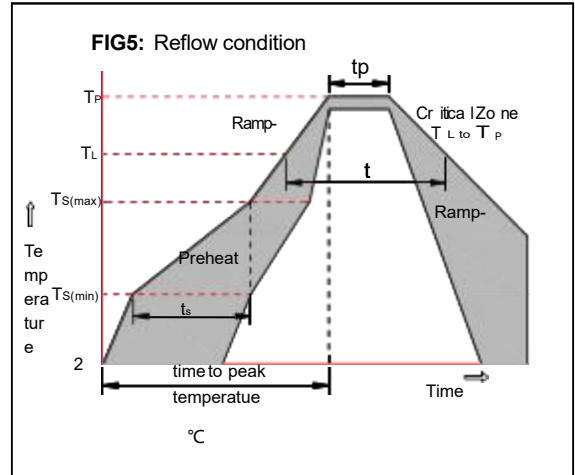


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150 °C
	-Temperature Max( $T_{s(max)}$ )	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak)		3 °C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquid us)	+217 °C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_P$ )		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260 °C



Package Dimensions & Suggested Pad Layout

TO-247 AC

