VOLTAGE RANGE
400 Volts
CURRENT
30.0 Ampere

FEATURES

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

GK XXX
MUR3040

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
Weight: 5.65 grams

LOGO GK XXX CODE

MUR 30 40
IF VR Voltage

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MUR3040	UNITS
Maximum Recurrent Peak Reverse Voltage	400	V
Maximum RMS Voltage	280	V
Maximum DC Blocking Voltage	400	V
Maximum Average Forward Rectified Current	30.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	250	A
Maximum Instantaneous Forward Voltage at 30.0A	1.3	V
Maximum DC Reverse Current Ta=25°C	10	μA
at Rated DC Blocking Voltage Ta=100°C	100	μA
Maximum Reverse Recovery Time (Note 1)	30	nS
Typical Junction Capacitance (Note 2)	210	pF
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +175	°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

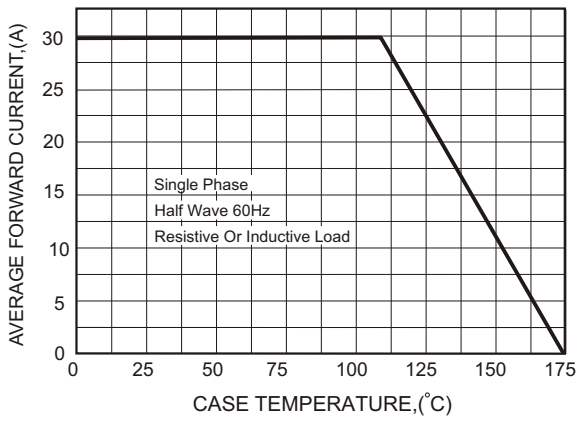


FIG.2-TYPICAL FORWARD CHARACTERISTICS

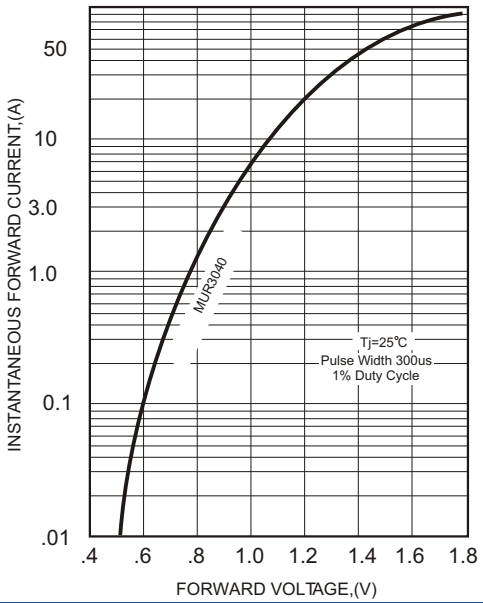


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

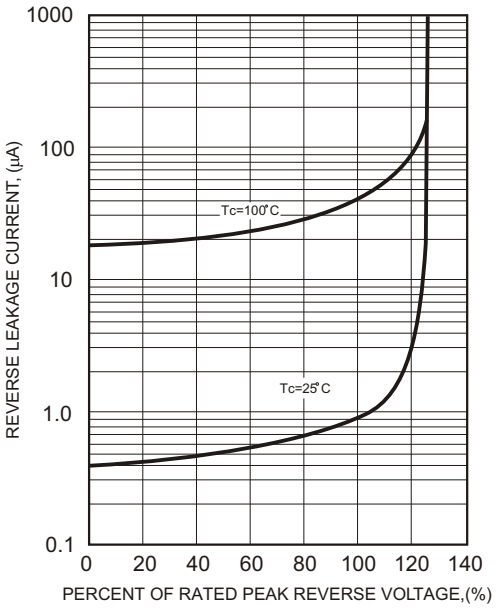
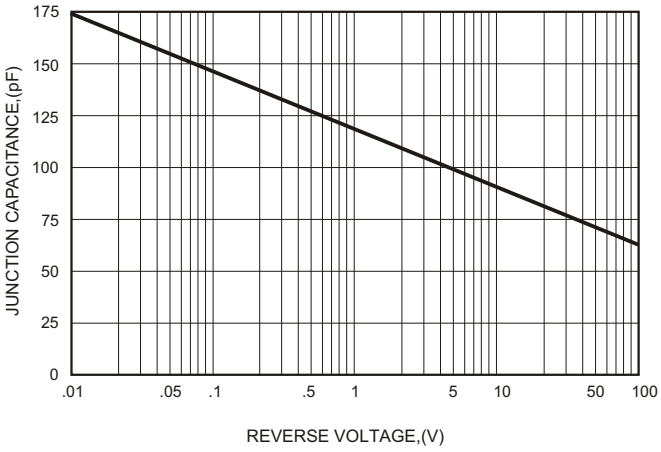


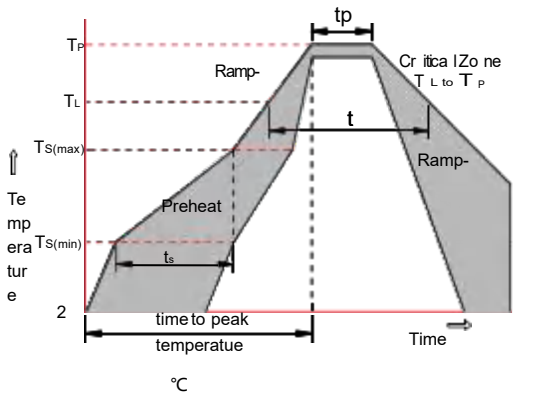
FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Soldering parameters

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

FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

TO-247AC