

**Preliminary**

**Z4GP40JLH THRU Z4GP40MLH**

**FEATURES**

- \* Halogen-free type
- \* Internal structure with GPRC (glass passivated rectifier chip) inside
- \* Compliance to RoHS product
- \* Lead less chip form, no lead damage
- \* Lead-free solder joint, no wire bond & lead frame
- \* Low power loss, High efficiency
- \* High current capability
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Patented ZPAK™ Package Technology

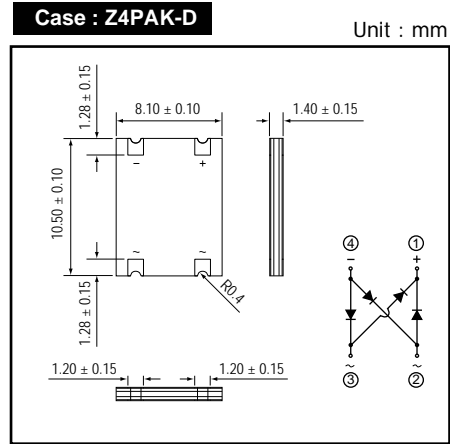
**APPLICATION**

- \* AC/DC Power Supply
- \* Communication Equipment

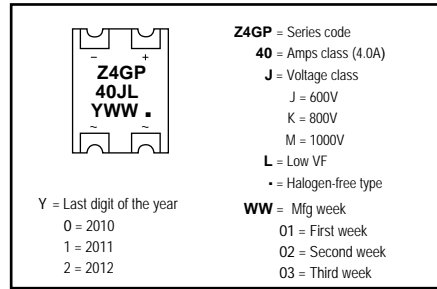
**MECHANICAL DATA**

**Case :** Packed with FRP substrate and epoxy underfilled  
**Terminals :** Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.  
**Polarity :** Laser marking symbols  
**Weight :** 0.29 gram

**OUTLINE DIMENSIONS**



**MARKING**



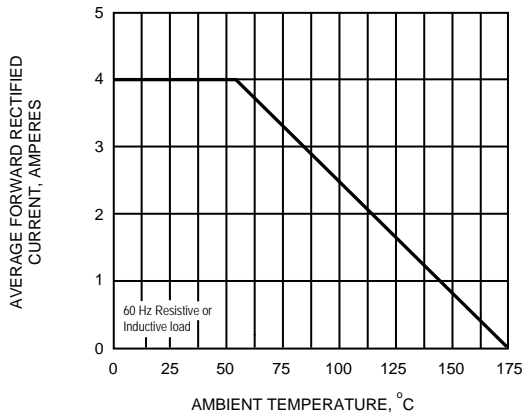
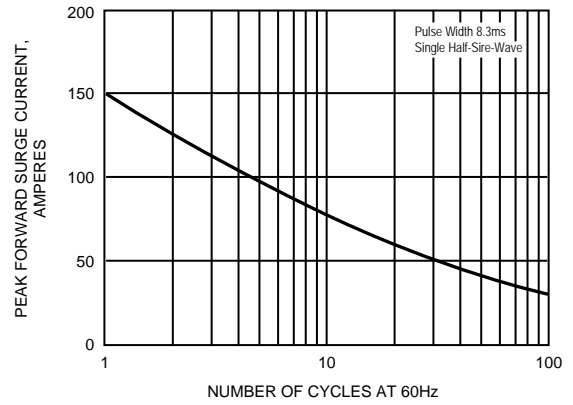
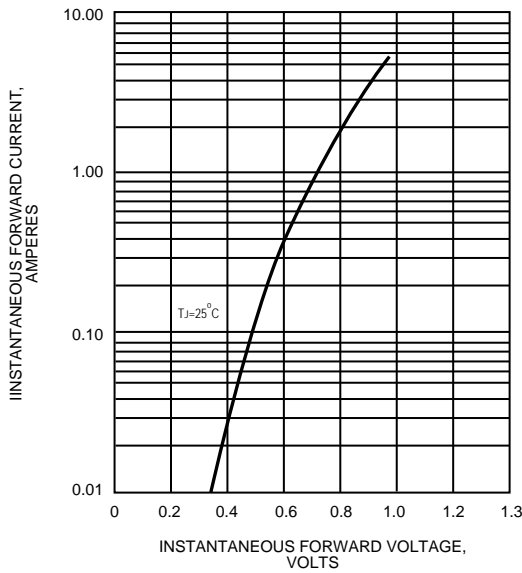
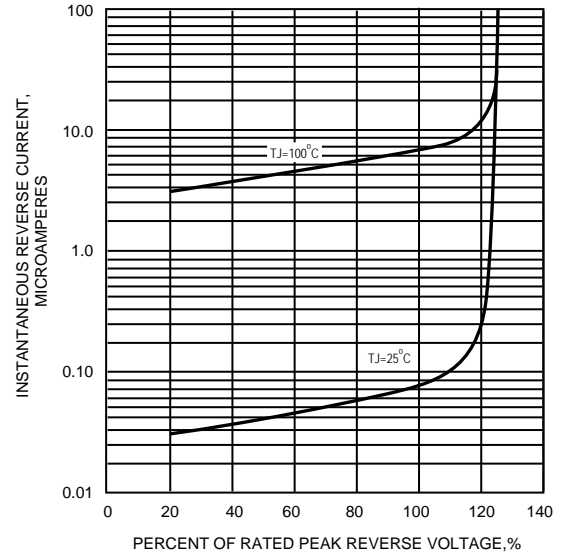
**Absolute Maximum Ratings (Ta = 25 °C)**

ITEM	Symbol	Conditions	Rating			Unit
			Z4GP40JLH	Z4GP40KLH	Z4GP40MLH	
Repetitive peak reverse voltage	VRRM		600	800	1000	V
Average forward current	IF(AV)		4.0			A
Peak forward surge current	IFSM	8.3ms single half sine-wave	150			A
Operating junction and storage temperature Range	Tj,TSTG		-55 to +175			°C

**Electrical characteristics (Ta = 25 °C)**

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 2.0A IF = 4.0A	- -	0.86 0.90	0.90 0.95	V
Repetitive peak reverse current	IRRM	VR = Max. VRRM , Ta = 25 °C	-	0.08	5	uA
Current squared time	I <sup>2</sup> t	t < 8.3ms , Ta = 25 °C	-	93.38	-	A <sup>2</sup> s
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	45	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTE)	-	110	-	°C/W
	Rth(JL)	Junction to lead (NOTE)	-	15	-	

NOTES : Thermal resistance, junction to ambient, measured on PC board with 5.0mm<sup>2</sup> (0.03mm thick) land areas.

**FIG.1 - FORWARD CURRENT DERATING CURVE**

**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT**

**FIG.5 - TYPICAL JUNCTION CAPACITANCE**
