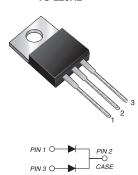


www.vishay.com

Vishay General Semiconductor

Dual Common Cathode Ultrafast Plastic Rectifier

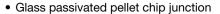




PRIMARY CHARACTERISTICS						
I _{F(AV)}	16 A					
V_{RRM}	50 V, 100 V, 150 V, 200 V					
I _{FSM}	125 A					
t _{rr}	35 ns					
V _F at I _F	0.895 V					
T _J max.	150 °C					
Package	TO-220AB					
Diode variation Common cathode						

FEATURES

Power pack





- · Ultrafast recovery time
- · Low switching losses, high efficiency
- High forward surge capability
- Solder dip 275 °C max., 10 s per JESD 22-B106
- Material categorization: for definitions of compliance please see <u>www.vishav.com/doc?99912</u>

TYPICAL APPLICATIONS

For use in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, DC/DC converters, and other power switching application.

MECHANICAL DATA

Case: TO-220AB

Molding compound meets UL 94V-0 flammability rating

Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: matte tin plated leads, solderable per

J-STD-002 and JESD22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: as marked

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	GI2401	GI2402	GI2403	GI2404	UNIT	
Max. repetitive peak reverse voltage	V_{RRM}	50	100	150	200	V	
Max. RMS voltage	V _{RMS}	35	70	105	140	V	
Max. DC blocking voltage	V_{DC}	50	100	150	200	V	
Max. average forward rectified current at T _C = 100 °C	I _{F(AV)}		Α				
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode	I _{FSM}		Α				
Operating junction and storage temperature range	T _J , T _{STG}		°C				

GI2401, GI2402, GI2403, GI2404

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ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
PARAMETER	TEST CONDITIONS		SYMBOL	GI2401	GI2402	GI2403	GI2404	UNIT	
Max. instantaneous forward voltage per diode	I _F = 4 A	T _J = 25 °C		0.900				V	
	I _F = 8 A	T _J = 25 °C	V _F	0.975					
	I _F = 4 A	T _J = 100 °C							
	I _F = 8 A	T _J = 100 °C							
Max. DC reverse current at rated DC blocking voltage per diode		T _C = 25 °C	I _R		50		5.0	μА	
		T _C = 100 °C			150		500		
Max. reverse recovery time per diode	$I_F = 0.5 A$ $I_{rr} = 0.25 A$	A, I _R = 1.0 A,	t _{rr}	35		ns			
Typical junction capacitance per diode	4.0 V, 1 M	1Hz	CJ	85			pF		

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	GI2401	GI2402	GI2403	GI2404	UNIT	
Typical they are lyesistance now diade (1)	$R_{\theta JA}$	16				°C/W	
Typical thermal resistance per diode (1)		2.2			C/VV		

Note

⁽¹⁾ Thermal resistance from junction to ambient and from junction to case per leg mounted on heatsink

ODERING INFORMATION (Example)								
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE			
TO-220AB	GI2401-E3/45	1.85	45	50/tube	Tube			

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RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

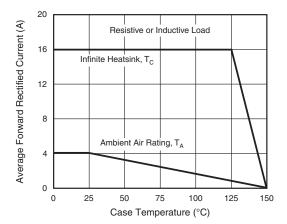


Fig. 1 - Max. Forward Current Derating Curve

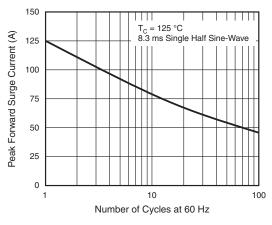


Fig. 2 - Max. Non-Repetitive Peak Forward Surge Current Per Diode

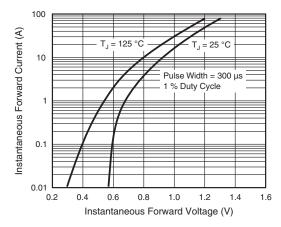


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

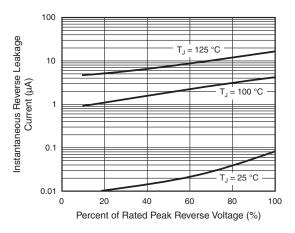


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

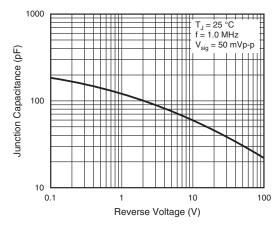
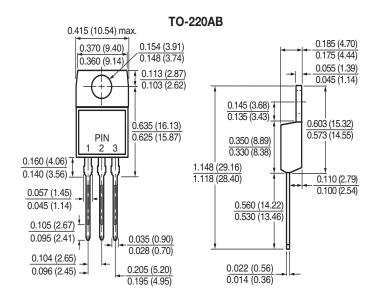


Fig. 5 - Typical Junction Capacitance Per Diode



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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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