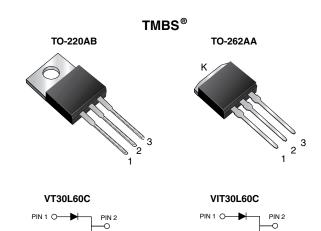


Vishay General Semiconductor

## **Dual Trench MOS Barrier Schottky Rectifier**

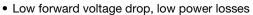
Ultra Low VF = 0.32 V at IF = 5.0 A



PRIMARY CHARACTERISTICS					
I <sub>F(AV)</sub>	2 x 15 A				
$V_{RRM}$	60 V				
I <sub>FSM</sub>	200 A				
V <sub>F</sub> at I <sub>F</sub> = 15 A	0.45 V				
T <sub>J</sub> max.	150 °C				
Package	TO-220AB, TO-262AA				
Diode variation	Common cathode				

#### **FEATURES**







• Solder dip 275 °C max. 10 s, per JESD 22-B106

 Material categorization: for definitions of compliance please see www.vishay.com/doc?99912





### RoHS COMPLIANT

#### TYPICAL APPLICATIONS

For use in high frequency converters, switching power supplies, freewheeling diodes, OR-ing diode, DC/DC converters, and reverse battery protection.

### **MECHANICAL DATA**

Case: TO-220AB and TO-262AA

Molding compound meets UL 94 V-0 flammability rating Base P/N-E3 - RoHS-compliant, and commercial grade **Terminals:** Matte tin plated leads, solderable per

J-STD-002 and JESD 22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: As marked

Mounting Torque: 10 in-lbs maximum

MAXIMUM RATINGS (T <sub>A</sub> = 25 °C unless otherwise noted)					
PARAMETER		SYMBOL	VT30L60C VIT30L60C		UNIT
Maximum repetitive peak reverse voltage		$V_{RRM}$	60		V
Maximum average forward rectified current (fig. 1)	per device		30		А
	per diode	I <sub>F(AV)</sub>	15		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load		I <sub>FSM</sub>	200		А
Voltage rate of change (rated V <sub>R</sub> )		dV/dt	10 000		V/µs
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-40 to +150		°C

# VT30L60C-E3, VIT30L60C-E3

# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT
Instantaneous forward voltage per diode	I <sub>F</sub> = 5.0 A	T <sub>A</sub> = 25 °C	- V <sub>F</sub> <sup>(1)</sup>	0.43	-	V
	I <sub>F</sub> = 7.5 A			0.46	-	
	I <sub>F</sub> = 15 A			0.51	0.60	
	I <sub>F</sub> = 5.0 A	T <sub>A</sub> = 125 °C		0.32	-	
	I <sub>F</sub> = 7.5 A			0.36	-	
	I <sub>F</sub> = 15 A			0.45	0.57	
Reverse current per diode	V <sub>R</sub> = 60 V	T <sub>A</sub> = 25 °C	I <sub>R</sub> <sup>(2)</sup>	-	4.0	- mA
	V <sub>R</sub> = 60 V	T <sub>A</sub> = 125 °C		27	110	

### Notes

 $^{(1)}\,$  Pulse test: 300  $\mu s$  pulse width, 1  $\,\%$  duty cycle

(2) Pulse test: Pulse width  $\leq$  40 ms

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)					
PARAMETER	SYMBOL	VT30L60C	VIT30L60C	UNIT	
Typical thermal resistance	per diode	В	1.8		°C/W
	per device	$R_{\theta JC}$	0.8		

ORDERING INFORMATION (Example)						
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE	
TO-220AB	VT30L60C-E3/4W	1.85	4W	50/tube	Tube	
TO-262AA	VIT30L60C-E3/4W	1.46	4W	50/tube	Tube	



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### **RATINGS AND CHARACTERISTICS CURVES** (T<sub>A</sub> = 25 °C unless otherwise noted)

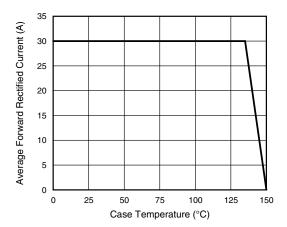


Fig. 1 - Maximum Forward Current Derating Curve

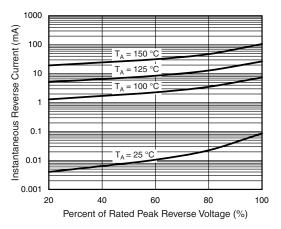


Fig. 4 - Typical Reverse Characteristics Per Diode

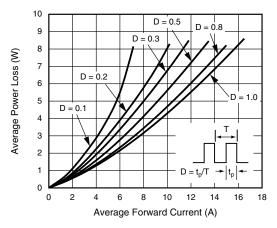


Fig. 2 - Forward Power Dissipation Characteristics Per Diode

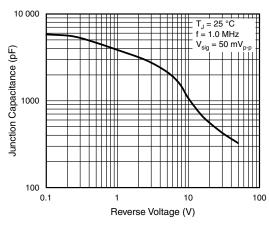


Fig. 5 - Typical Transient Thermal Impedance Per Diode

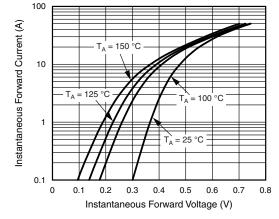


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

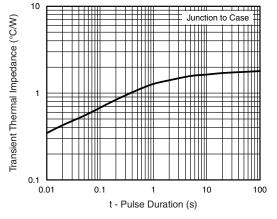
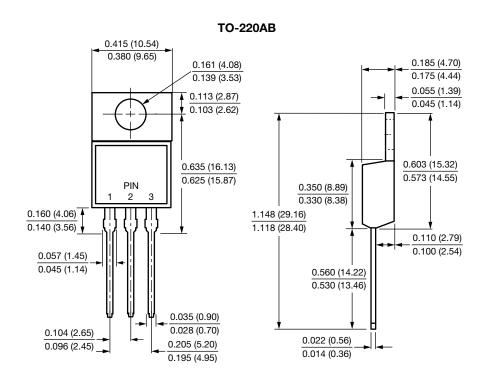


Fig. 6 - Typical Junction Capacitance Per Diode

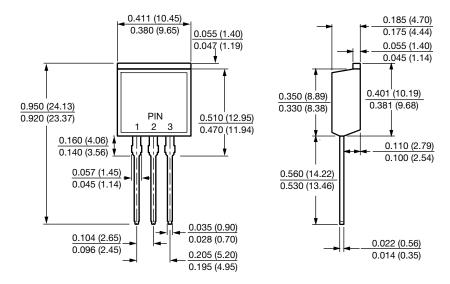


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### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



#### **TO-262AA**





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