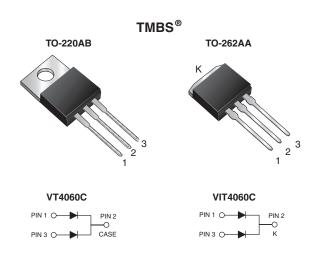


Dual Trench MOS Barrier Schottky Rectifier

Ultra Low $V_F = 0.32 \text{ V}$ at $I_F = 5.0 \text{ A}$



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

FEATURES

- Trench MOS Schottky technology
- · Low forward voltage drop, low power losses

High efficiency operation

ROHS COMPLIANT HALOGEN

- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: for definitions of compliance please see www.vishav.com/doc?99912

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-M3 - halogen-free, RoHS-compliant

Terminals: matte tin plated leads, solderable per

J-STD-002 and JESD 22-B102

M3 suffix meets JESD 201 class 1A whisker test

Polarity: as marked

Mounting Torque: 10 in-lbs maximum

MAXIMUM RATINGS (T _A = 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		A
	per diode	I _{F(AV)}	15		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load		I _{FSM}	200		А
Voltage rate of change (rated V _R)		dV/dt	10 000		V/µs
Operating junction and storage temperature range		T _J , T _{STG}	-40 to +150		°C





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

Notes

(1) Pulse test: 300 µs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T _A = 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-M3/4W	1.89	4W	50/tube	Tube		
TO-262AA	VIT30L60C-M3/4W	1.46	4W	50/tube	Tube		



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

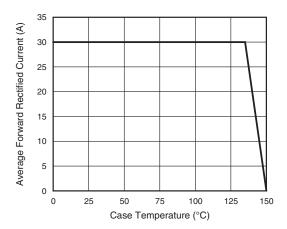
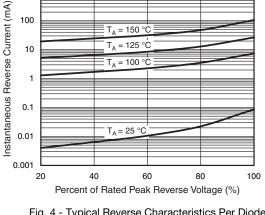


Fig. 1 - Maximum Forward Current Derating Curve



1000

Fig. 4 - Typical Reverse Characteristics Per Diode

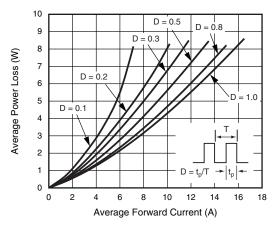


Fig. 2 - Forward Power Dissipation Characteristics Per Diode

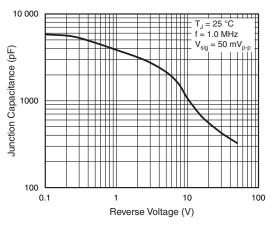


Fig. 5 - Typical Transient Thermal Impedance Per Diode

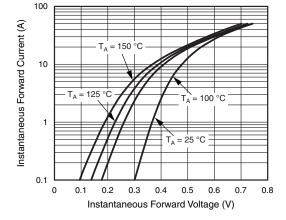


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

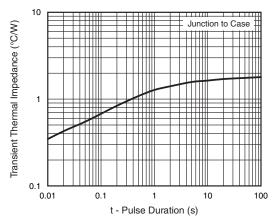
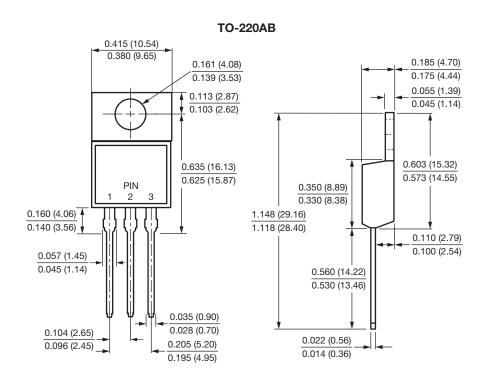


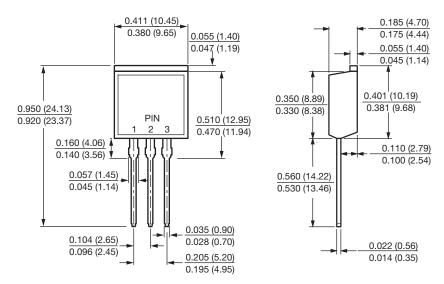
Fig. 6 - Typical Junction Capacitance Per Diode



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



TO-262AA





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