

### **ULTRAFAST RECTIFIERS**

PRV:400 Volts Io:30 Amperes

### **Description**

These state-of-the-art devices are designed for use in switching power supplies, inverters and as free wheeling diodes.

#### **Features**

- · High current capability
- · High surge current capability
- · High reliability
- · Low leakage current
- · Low forward voltage drop
- · Fast switching for high efficiency
- · RoHS compliant package

#### **Mechanical Data**

• Case: TO-247AD(TO-3P)

• Lead Temperature for Soldering Purposes: 260°C Max

for 10 Seconds

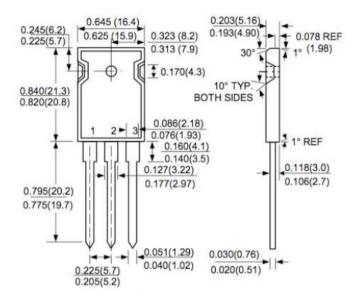
• Weight: 4.3 grams (approximately)

### **Packing & Order Information**

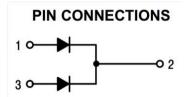
50/Tube; 1,000/Box







### **Graphic symbol**



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)					
Parameter	Symbol	Value	Unit		
Maximum repetitive peak reverse voltage	VRRM	400	V		
Working peak reverse voltage	VRWM	400	V		
Maximum DC blocking voltage	VR	400	V		
Maximum Average Rectified Per Leg	IF(AV)	15	A		
Forward Current (Rated VR) Tc = 150 °C Per Device		30			
Maximum Peak Forward Surge Current	несм	150	150		
(60 Hz, Half wave, single phase ) Per Leg	IFS M	150	A		
Maximum Instantaneous Forward Voltage at IF = 15 A	VF	1.25	A		



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Parameter		Symbol	Value	Unit		
Maximum Instantaneous Reverse TJ = 25 °C		IR	10	uA		
Current at VR	TJ = 150 °C	IR(H)	500	uA		
Maximum Reverse Recovery Time		Trr	60	ns		
Junction temperature range		TJ	-55 to +175	°C		
Storage temperature range		TSTG	-55 to +175	°C		

Notes:

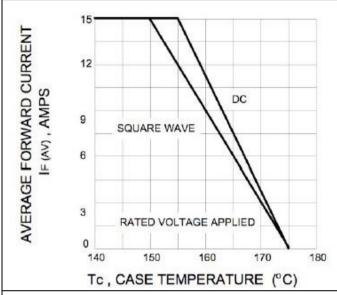
(1) Pulse test: 300 µs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms



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#### ■Characteristic Curves



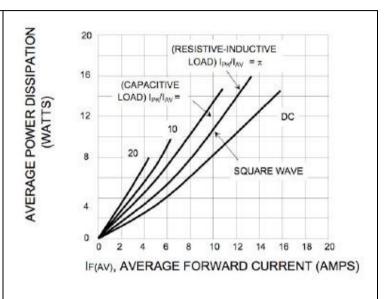


FIG.1- CURRENT DERATING CURVE , CASE TEMPERATURE (PER LEG)

1.0 T<sub>J</sub> = 25 °C

0.1 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6

VF, INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.2- POWER DISSIPATION (PER LEG)

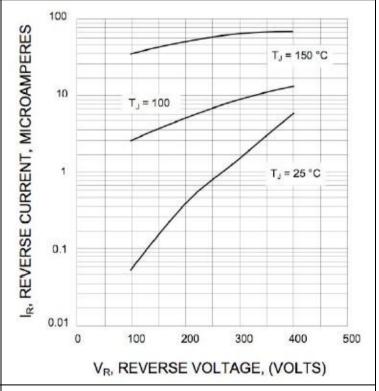


FIG.3- TYPICAL FORWARD VOLTAGE CHARACTERISTICS (PER LEG)

FIG.4- TYPICAL REVERSE CURRENT CHARACTERISTICS (PER LEG)



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