

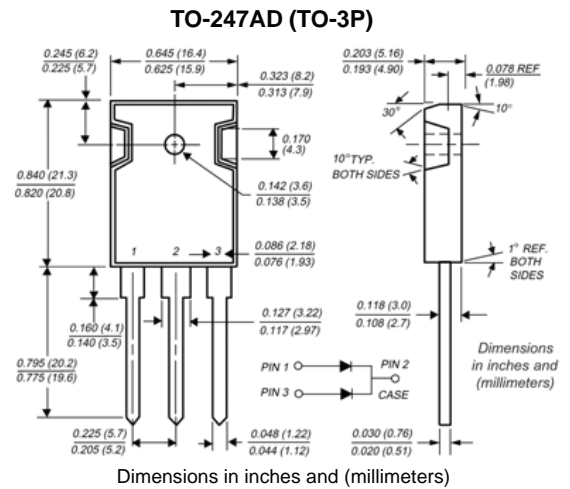
30.0 Ampere Dual Common Cathode Schottky Barrier Rectifiers

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- Guardring for overvoltage protection
- For use in low voltage,high frequency inverters free wheeling , and polarity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: TO-247AD/TO-3P molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.2245 ounces, 6.3673 grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)											
PARAMETER	SYMBOL	MBR 3035 PT	MBR 3045 PT	MBR 3050 PT	MBR 3060 PT	MBR 3090 PT	MBR 30100 PT	MBR 30150 PT	MBR 30200 PT	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	90	100	150	200	V	
Maximum RMS voltage	V _{RMS}	24	31	35	42	63	70	105	140	V	
Maximum DC blocking voltage	V _{DC}	35	45	50	60	90	100	150	200	V	
Maximum average forward rectified current	I _{F(AV)}	30								A	
Peak repetitive forward current (Rated V _R , Square wave, 20KHz)	I _{FRM}	30								A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	200								A	
Peak repetitive reverse surge Current (Note 1)	I _{RRM}	2			1						A
Maximum instantaneous forward voltage (Note 2)	V _F									V	
I _F =15A, T _J =25°C		-		0.75		0.85		0.95	1.05		
I _F =15A, T _J =125°C		0.60		0.65		0.75		0.92	-		
I _F =30A, T _J =25°C		0.82		-		-		1.02	1.10		
I _F =30A, T _J =125°C		0.73		-		-		0.98	-		
Maximum reverse current @ rated VR	I _R	1			0.5			0.1		mA	
T _J =25 °C T _J =125 °C		20		15		10					
Voltage rate of change,(Rated V _R)	dV/dt	10,000								V/μs	
Typical thermal resistance	R _{θJC}	1.4								°C/W	
Operating junction temperature range	T _J	- 55 to +150								°C	
Storage temperature range	T _{STG}	- 55 to +150								°C	

Note 1: 2.0μs Pulse Width, f=1.0KHz

Note 2: Pulse Test : 300μs Pulse Width, 1% Duty Cycle



MBR3035PT~MBR30200PT

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

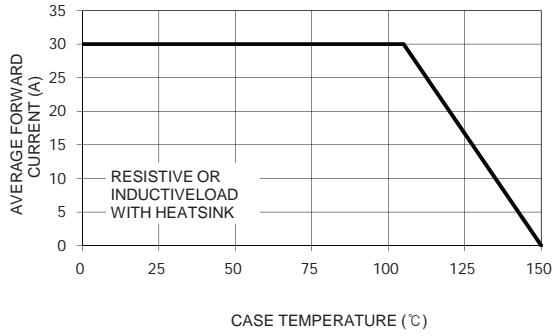


FIG. 2 MAXIMUM FORWARD SURGE CURRENT PER LEG

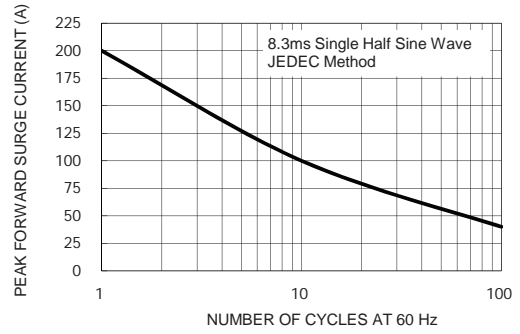


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

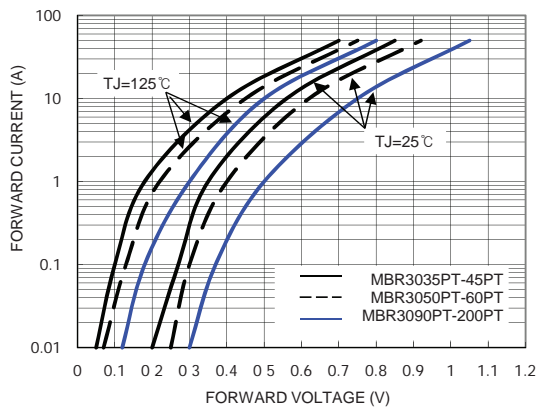


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

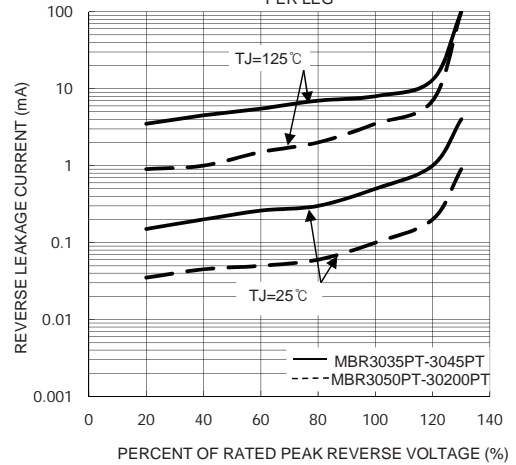


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

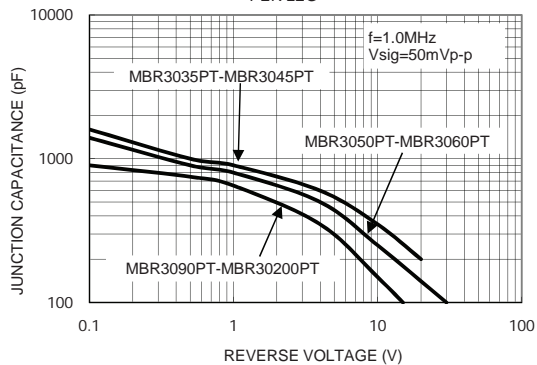


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

