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MBR2540FCT~MBR25200FCT

25 AMPERES SCHOTTKY BARRIER RECTIFIERS							DRAWING			
Voltage 40 to 200 Volts	Curr	ent	25 Ampei	res						
eatures								1		
Plastic package has underwriters laboratory										
Flammability classification 94v-O.							11			
Flame retardant epoxy molding compound.										
Metal silicon junction, majority carrier condition.							_	┝╸Ҝ		
Low power loss, high efficiency.										
High current capability										
Guarding for overvoltage protection										
For use in low voltage, high frequency inverters free	e wheeling	g, and pola	arity protect	tion applica	tions.					
In compliance with EU ROHS 2002/95/EC directive	S.									
Case: ITO-220AB										
laximum ratings and Electrical Characteristic	S									
atings at 25 $^\circ\!$	ecified pl	hase, half	wave, 60Hz	z, resistive	or inductive	load.				
or capacitive load, derate current by 20%.										
PARAMETER	Symb	MBR2540	MBR25	MBR25	MBR25	MBR25	MBR25	MBR25	Unit	
	ol	FCT	45FCT	50FCT	60FCT	100FCT	150FCT	200FCT		
Maximum Recurrent Peak Reverse Voltage	VRRM	40	45	50	60	100	150	200	v	
Maximum RMS Voltage	V _{RMS}	40	45	50	60	100	150	200	v	
Maximum DC Blocking Voltage	VDC	40	45	50	60	100	150	200	v	
Maximum Average Forward Current	I _{F(AV)}	25						A		
Peak Forward Surge Current :8.3ms single half										
sine-wave superimposed on rated load (JEDEC	I _{FSM}	гзм 200						A		
method)										
Maximum Forward Voltage at 12.5A,per leg	VF	0.7		0.75		0.8	0.9		V	
Maximum DC Reverse Current TJ=25°C at Rated DC				0.2	1					
Blocking Voltage TJ=125 ℃	IR				50				mA	
Typical Thermal Resistance	R _{0jc}	4							۳C	
	TJ,TST	-50 to								
Operating Junction and Storage Temperature Range	G	-65 to +175				+175	5			



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RATING AND CHARACTERISTIC CURVES AVERAGE FORWARD RECTIFIED CURRENT AMPERES 25.0 PEAK FORWARD SURGE CURRENT, 240 = 40V = 45-200 V. 210 20.0 8.3ms Single Half Since-W 180 15.0 150 Amps 120 10.0 90 RESISTIVE OR 5.0 60 INDUCTIVE LOAD 30 0 0 80 20 40 60 100 120 140 160 180 0 2 5 10 20 50 100 CASE TEMPERATURE. °C NO. OF CYCLE AT 60Hz Fig.2- MAXIMUM NON - REPETITIVE SURGE Fig.1- FORWARD CURRENT DERATING CURVE CURRENT 10 40 INSTANTANEOUS REVERSE CURRENT, mA 40-45V TC=125°C FORWARD CURRENT, Amps 10 1.0 8 6 4 50-60V 80-100V 2 0.1 TC=75°C 150-200V 1.0 .6 .4 TC=25°C 0.01 T,= 25°C Pulse Width = 300us .2 1% Duty Cyde .1 .7 0.9 1.0 1.1 .4 .5 .6 .8 0.001 20 40 60 80 100 FORWARD VOLTAGE, VOLTS PERCENT OF INSTANTANEOUS REVERSE VOLTAGE, % Fig.4- TYPICAL INSTANTANEOUS FORWARD Fig.3- TYPICAL REVERSE CHARACTERISTICS CHARACTERISTICS



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Mechanical Dimensions

