

#### **Features**

- Halogen Free. "Green" Device (Note 1)
- Fully Automotive Qualified to AEC-Q101
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

# 10 Amp Schottky Barrier Rectifiers 200 Volts

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$			
Working Peak Reverse Voltage	V <sub>RWM</sub>	200 V		
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>RMS</sub>	140	V	
Average Rectified Forward Current				
Per Diode Per Device	I <sub>F(AV)</sub>	5 10	А	
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	I <sub>FSM</sub>	120	А	
Current Squared Time @ 1ms≤t≤8.3ms	l²t	60	A <sup>2</sup> s	

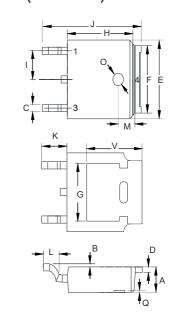
### **Internal Structure**

Pin	Description	Simplified Outline	Graphic Symbol		
1,3	Anode	4			
2,4	Cathode	MCC MBRD10200CT	1 •—▶		
		YYWW + +	3 OH HEATSINK		
		1 3 YYWW = Date Code			

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

# (TO-252) DPAK



DIMENSIONS						
DIM	INCHES		MM		NOTE	
DIIVI	MIN	MAX	MIN	MAX	NOTE	
Α	0.087	0.094	2.20	2.40		
В	0.000	0.005	0.00	0.13		
С	0.026	0.034	0.66	0.86		
D	0.018	0.023	0.46	0.58		
Е	0.256	0.264	6.50	6.70		
F	0.201	0.215	5.10	5.46		
G	0.190		4.83			
Н	0.236	0.244	6.00	6.20		
I	0.086	0.094	2.18	2.39		
J	0.386	0.409	9.80	10.40		
K	0.1	14	2.90			
L	0.055	0.067	1.40	1.70		
M	0.063		1.60			
0	0.043	0.051	1.10	1.30		
Q	0.000	0.012	0.00	0.30		
V	0.211		5.35			



### **Thermal characteristics**

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
TJ	Operating Junction Temperature Range		-55		175	°C
T <sub>stg</sub>	Storage Temperature Range		-55		175	°C
Rth <sub>(J-C)</sub>	Thermal Resistance from Junction to Case			5		°C/W

# Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =5A;T <sub>J</sub> =25°C		0.Ì H	0.J0	V
Per Diode		I <sub>F</sub> =5A;T <sub>J</sub> =125°C		0.Ϊ €	0.Ì0	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =200V;T <sub>J</sub> =25°C			10	uA
Per Diode		V <sub>R</sub> =200V;T <sub>J</sub> =125°C			500	uA
Junction Capacitance Per Diode	CJ	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		1€5		pF

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#### **Curve Characteristics**

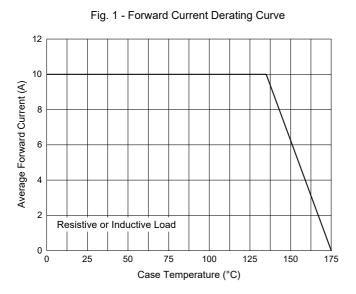


Fig. 3 - Typical Forward Characteristics Per Diode

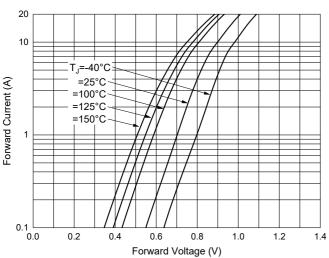
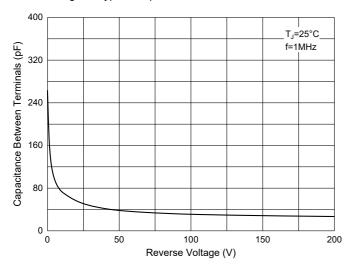


Fig. 5 - Typical Capacitance Characteristics Per Diode



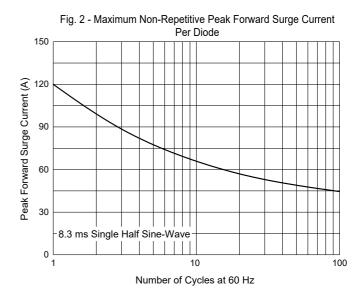
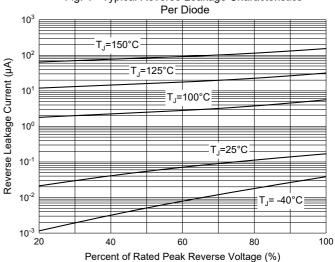


Fig. 4 - Typical Reverse Leakage Characteristics





#### **Ordering Information**

Device	Packing		
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel		

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