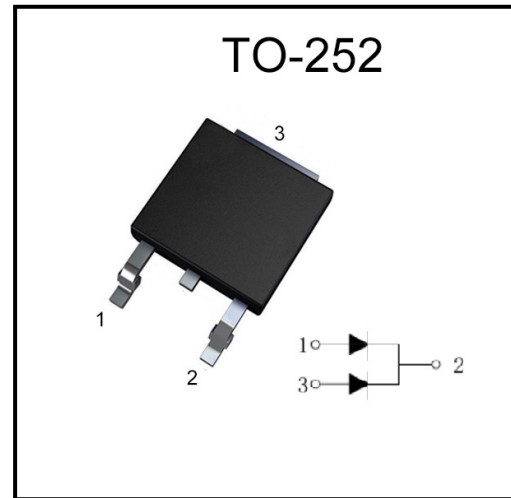


MBR2040DCT-MBR20200DCT Schottky Barrier Rectifiers

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in comply with EU RoHS

Package



Mechanical Data

- Case: TO-252AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

Maximum Ratings and Electrical Characteristics

Symbol	Characteristics	MBR20 40DCT	MBR20 45DCT	MBR20 50DCT	MBR20 60DCT	MBR20 80DCT	MBR20 90DCT	MBR20 100DCT	MBR20 150DCT	MBR20 200DCT	Unit
V _{RRM}	Max. Recurrent Peak Reverse Voltage	40	45	50	60	80	90	100	150	200	V
V _{RMS}	Max. RMS Voltage	28	31.5	35	42	56	63	70	105	140	V
V _{DC}	Max. DC Blocking Voltage	40	45	50	60	80	90	100	150	200	V
I _{F(AV)}	Max.Average Forward Current	20									A
I _{FSM}	Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load(JEDEC)	150									A
V _F	Max.Forward Voltage at 10A	0.7		0.8		0.85			0.92		V
I _R	Max. DC Reverse Current at Rated DC Blocking Voltage	0.05 (T _J = 25 °C)									mA
		20 (T _J = 125 °C)									
R _{θJC}	Typical Thermal Resistance	2									°C/W
T _J ,T _{STG}	Operating Junction and Storage Temperature Range	-55 to +150									°C
C _J	Junction Capacitance ¹	700		500		400			300	250	pF

Note:(1)Measured at 1.0 MHz and applied reverse voltage of 4.0V Vdc.



MBR2040DCT-MBR20200DCT Schottky Barrier Rectifiers

Typical Performance Characteristics($T_A = 25^\circ\text{C}$, unless otherwise noted)

Figure 1:Forward Current Derating Curve

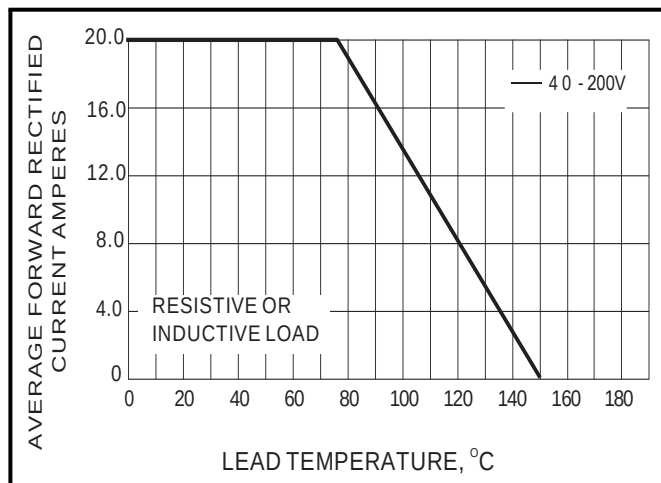


Figure 2:MAX. Non-Repetitive Surge Current

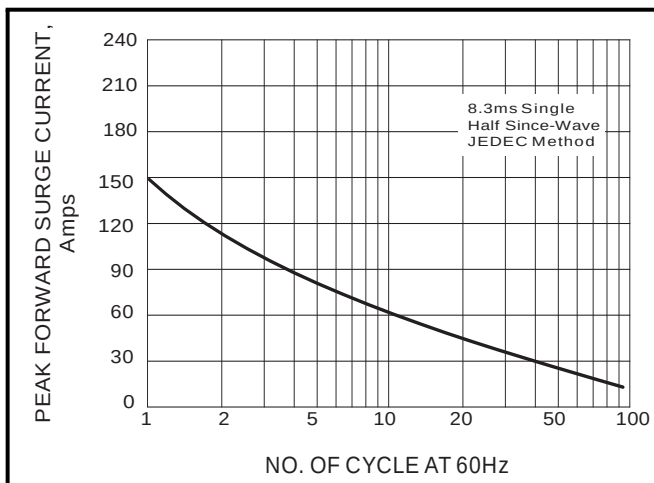


Figure 3:Typ. Reverse Characteristics

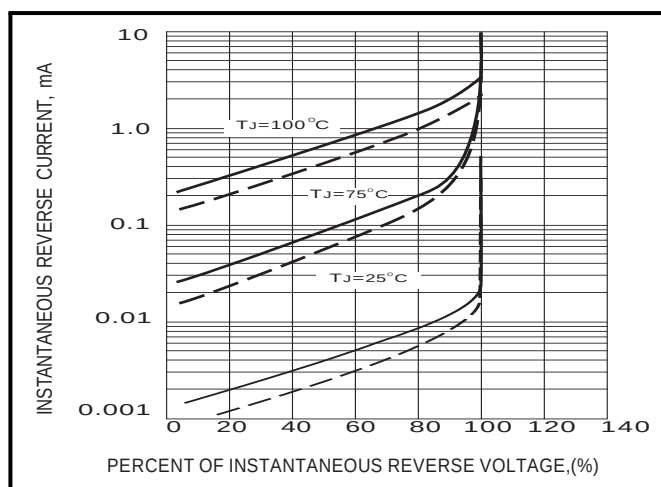
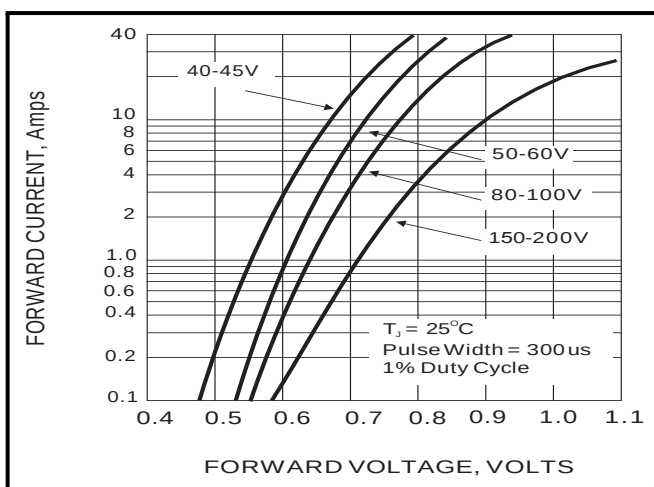
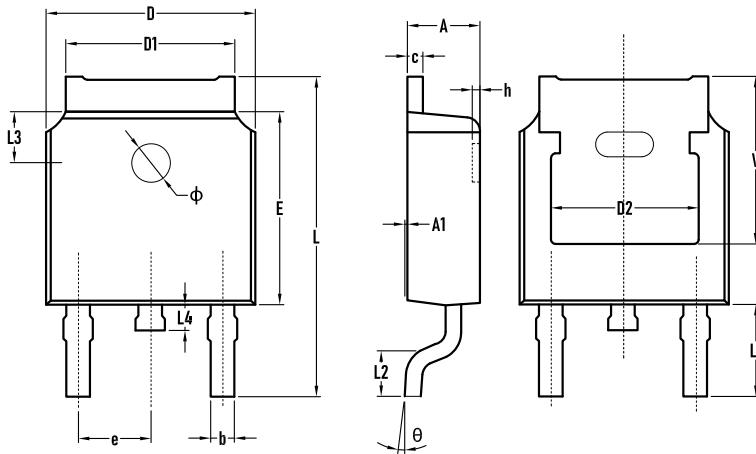


Figure 4:Typ. Instantaneous Forward Characteristics



MBR2040DCT-MBR20200DCT Schottky Barrier Rectifiers

Packaging Tape - TO-252



Symbol	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.660	0.860	0.026	0.034
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 TYP.		0.190 TYP.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.800	10.400	0.386	0.409
L1	2.900 TYP.		0.114 TYP.	
L2	1.400	1.700	0.055	0.067
L3	1.600 TYP.		0.063 TYP.	
L4	0.600	1.000	0.024	0.039
ϕ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.350 TYP.		0.211 TYP.	

