Elektronische Bauelemente

MBR545DS1~MBR5200DS1

Voltage 45V~ 200V

5.0 Amp Schottky Barrier Rectifiers

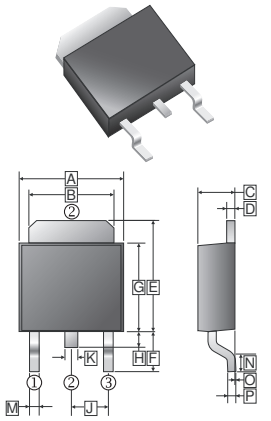
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- Plastic package has underwriters laboratory Flammability classification 94V-0
- For through hole applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS

TO-252(D-PACK)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.9	J	2.3 REF.	
B	4.95	5.53	K	0.89 REF.	
C	2.1	2.5	M	0.45	1.14
D	0.41	0.9	N	1.55 Typ.	
E	6	7.5	O	0	0.13
F	2.90 REF		P	0.58 REF.	
G	5.4	6.4			
H	0.6	1.2			

MECHANICAL DATA

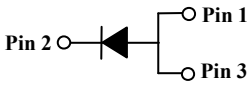
- Case: TO-252(D-Pack) Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: As Marked

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13' inch

ORDER INFORMATION

Part Number	Type
MBR545DS1~MBR5200DS1	Lead (Pb)-free
MBR545DS1~MBR5200DS1-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Part Number					Unit
			MBR 545DS1	MBR 560DS1	MBR 5100DS1	MBR 5150DS1	MBR 5200DS1	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	45	60	100	150	200	V
Maximum RMS Voltage		V_{RMS}	31.5	42	70	105	140	V
Maximum DC Blocking Voltage		V_{DC}	45	60	100	150	200	V
Maximum Average Forward Current		$I_{F(AV)}$	5					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)		I_{FSM}	150					A
Maximum Forward Voltage @5A		V_F	0.55	0.7	0.85	0.9	0.92	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_J=25°C	I_R	0.5					mA
	T_J=100°C		20					
Typical Thermal Resistance [1]		$R_{\theta JC}$	15					°C/W
Operating & Storage Temperature		T_J ,T_{STG}	-55~125	-55~150				°C

Note:

1. Mounted on FR-4 PCB Copper, minimum recommended pad layout

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

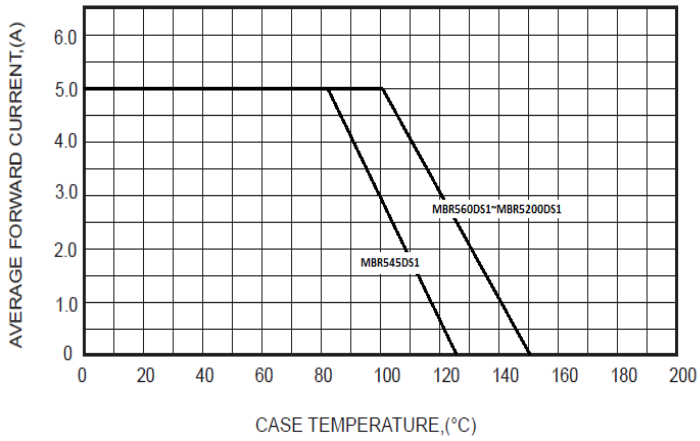

FIG.2-TYPICAL FORWARD CHARACTERISTICS

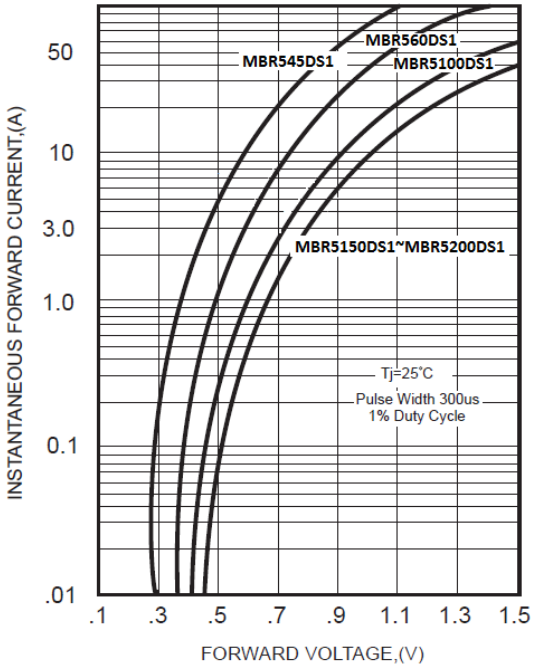

FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

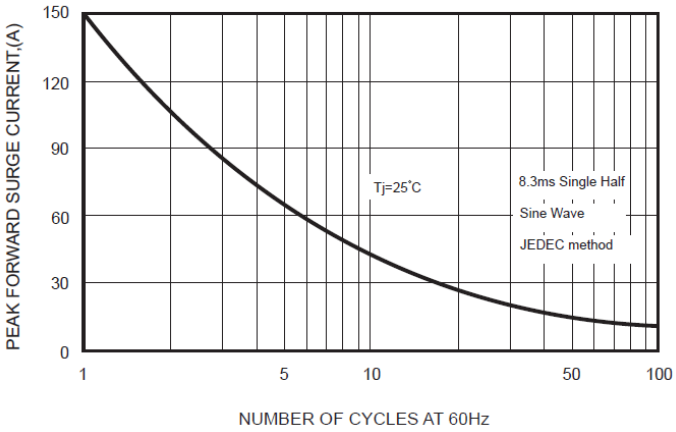

FIG.4 - TYPICAL REVERSE CHARACTERISTICS