Micro Commercial Components

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MBR2535FCT THRU MBR2560FCT

30 Amp Schottky Barrier Rectifier 35 to 60 Volts

Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- Marking : type number
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 4.5°C/W junction to Case
- For capacitive load.Derate current by 20%

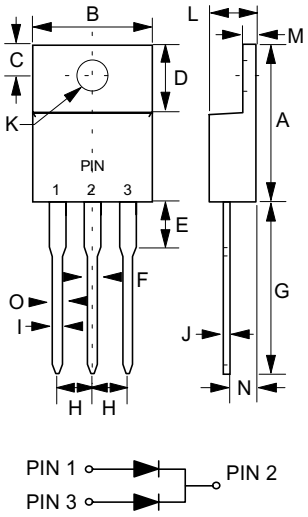
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR2535FCT	35V	24.5V	35V
MBR2545FCT	45V	31.5V	45V
MBR2550FCT	50V	35V	50V
MBR2560FCT	60V	42V	60V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Rectified Current	$I_{(AV)}$	30A	T_A = 130°C
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage			
MBR2535FCT-2545FCT	V_F	0.82V	I_{FM} = 30A; T_C = 25°C
MBR2550FCT-2560FCT		0.75V	I_F=15A, Tc=25°C
MBR2535FCT-2545FCT		0.73V	I_{FM} = 30A; T_C = 125°C
MBR2550FCT-2560FCT		0.65V	I_F=15A, Tc=125°C
Maximum DC Reverse Current At Rated DC Blocking Voltage			
MBR2535FCT-2545FCT	I_R	0.2mA	T_C = 25°C
MBR2550FCT-2560FCT		1.0mA	
MBR2535FCT-2545FCT		40mA	T_C = 125°C
MBR2550FCT-2560FCT		50mA	
Typical Junction Capacitance	C_J	1000pF	Measured at 1.0MHz, V_R=4.0V

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

ITO-220AB



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.583	.642	14.80	16.30	
B	---	.406	---	10.30	
C	.100	.112	2.55	2.85	
D	.248	.272	6.30	6.90	
E	---	.161	---	4.10	
F	---	.071	---	1.80	
G	.512	.543	13.00	13.80	
H	.100		2.55		
I	---	.035	---	0.90	
J	---	.032	---	0.80	
K	.118	.134	3.00	3.40	∅
L	---	.189	---	4.80	
M	---	.130	---	3.30	
N	.098	.114	2.50	2.90	
O	---	.055	---	1.40	

RATINGS AND CHARACTERISTIC CURVES (MBR2535FCT THRU MBR2560FCT)

FIG.1- FORWARD CURRENT DERATING CURVE

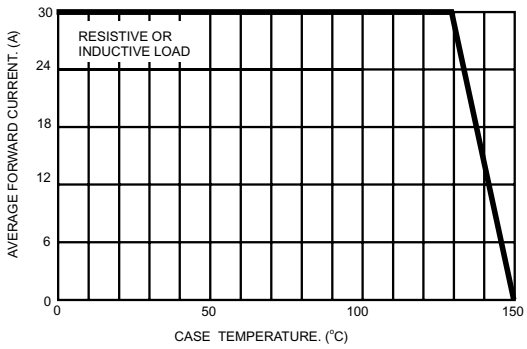


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

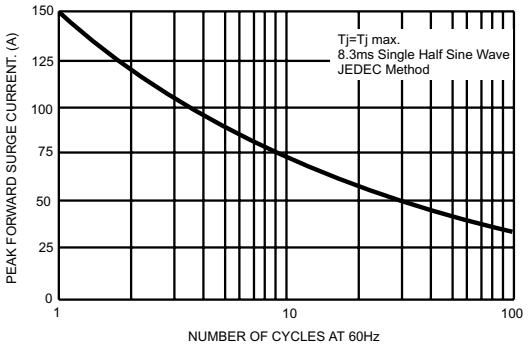


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

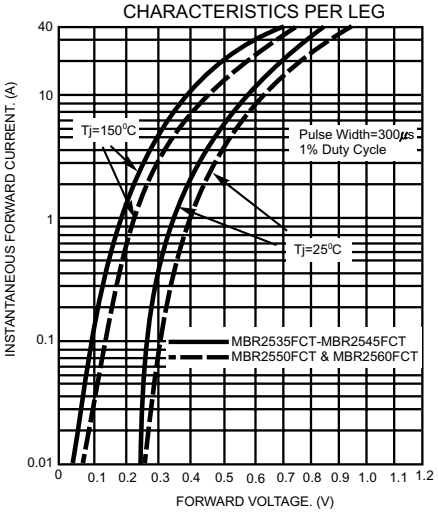


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

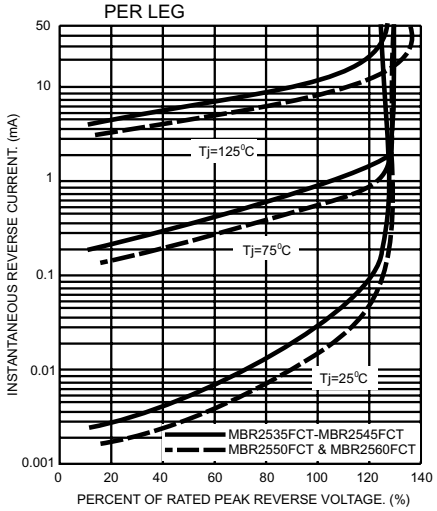


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

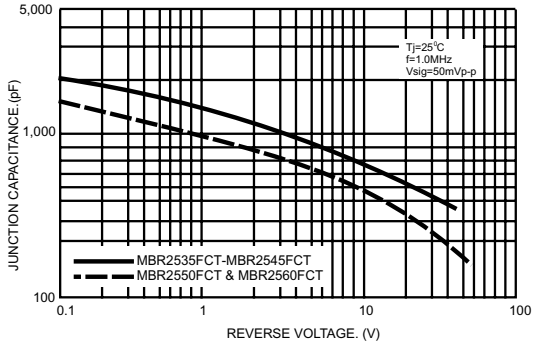
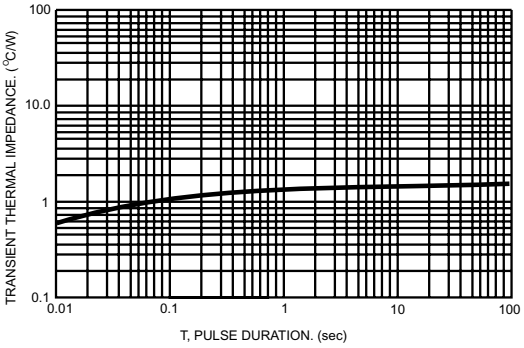


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box