·M·C·C·

Micro Commercial Components

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MBRF2535CT THRU MBRF2560CT

30 Amp Schottky Barrier Rectifier 35 to 60 Volts

Features

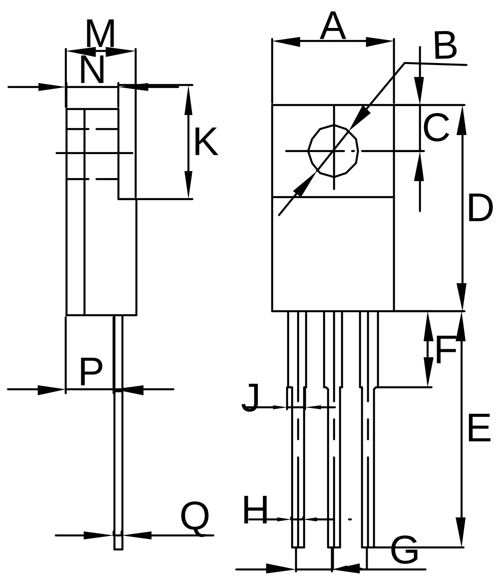
- Plastic material used carries Underwriters Laboratory Classifications 94v-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds,0.25" from case

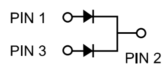
Maximum Ratings

- 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
MBRF2535CT	35V	24.5V	35V
MBRF2545CT	45V	31.5V	45V
MBRF2550CT	50V	35V	50V
MBRF2560CT	60V	42V	60V

ITO-220AB





DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.388	.407	9.85	10.35	
B	.128	.145	3.25	3.55	
C	.101	.111	2.57	2.83	
D	.570	.610	14.9	15.5	
E	.496	.520	12.6	13.2	
F	.148	.167	3.75	4.25	
G	.096	.101	2.44	2.57	
H	.019	.029	.47	.73	
J	.046	.056	1.17	1.43	
K	.266	.285	6.75	7.25	
M	.165	.190	4.25	4.75	
N	.110	.130	2.81	3.31	
P	.097	.107	2.72	2.48	
Q	.019	.029	.47	.73	

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 MBRF2535CT-2545CT MBRF2550CT-2560CT MBRF2535CT-2545CT MBRF2550CT-2560CT	V_F	0.82V 0.75V 0.73V 0.65V	I_{FM} = 30A; T_C = 25°C I_F=15A, Tc=25°C I_{FM} = 30A; T_C = 125°C I_F=15A, Tc=125°C
Maximum DC Reverse Current At Rated DC Blocking Voltage MBRF2535CT-2545CT MBRF2550CT-2560CT MBRF2535CT-2545CT MBRF2550CT-2560CT	I_R	0.2mA 1.0mA 40mA 50mA	T_C = 25°C T_C = 125°C
Typical Junction Capacitance	C_J	1000pF	Measured at 1.0MHz, V_R=4.0V

Note: 300 us pulse width, 1% duty cycle

www.mccsemi.com

MBRF2535CT thru MBRF2560CT

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RATINGS AND CHARACTERISTIC CURVES (MBRF2535CT THRU MBRF2560CT)

FIG.1- FORWARD CURRENT DERATING CURVE

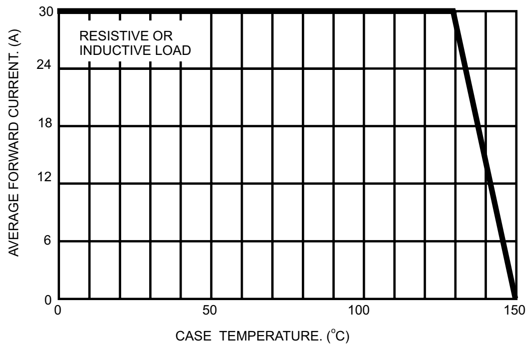

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

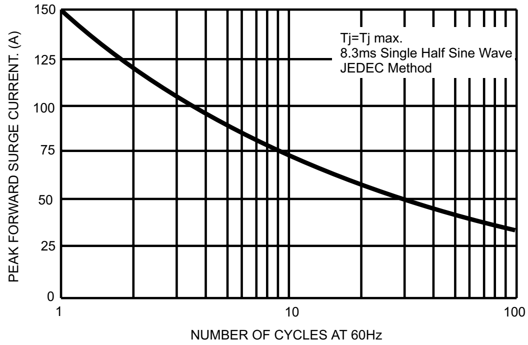

FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

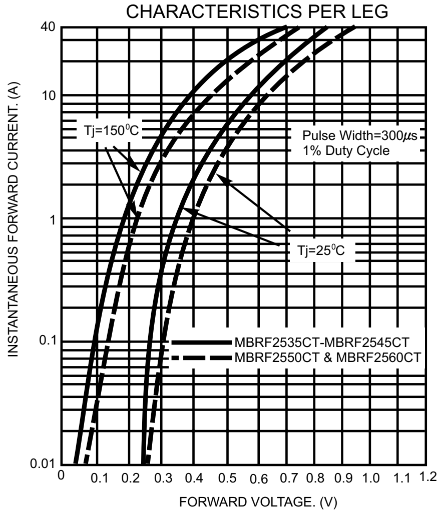

FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

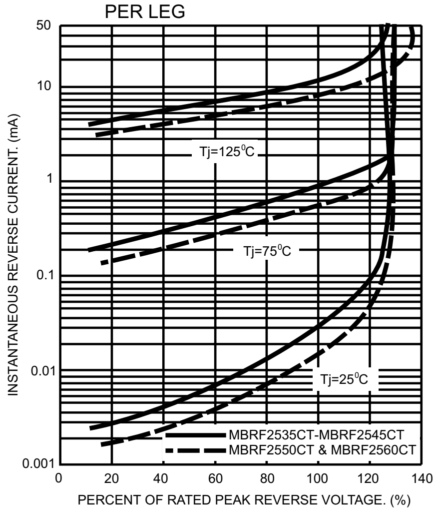

FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

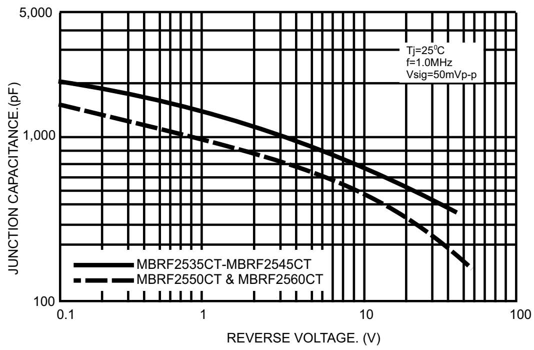

FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG