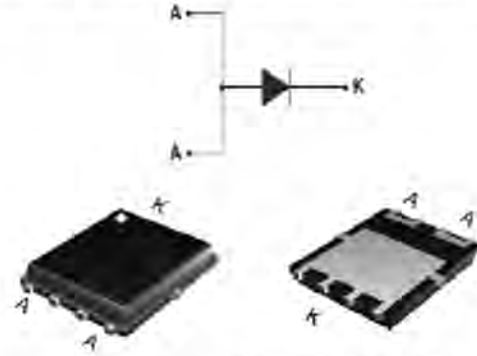


Features

- Thin Package:1.0mm
- Low forward voltage drop, low power losses
- High efficiency operation
- Halogen Free Plastic package has underwriters Laboratory Flammability Classification 94V-0

Mechanical Data

- Case: Epoxy, Molded
- Weight: 0.1grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 3000 units per reel



Package: POWER QFN5x6

Maximum Ratings & Electrical Characteristics

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

PARAMETER	TEST CONDITIONS		SYMBOL	MBRP10100	UNIT
Maximum repetitive peak reverse voltage			VRRM	100	V
Working peak reverse voltage			VRWM	100	V
Maximum DC blocking voltage			VDC	100	V
Maximum average forward rectified current at $T_c=105^\circ\text{C}$ total device per diode			$I_F(AV)$	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	150	A
Peak repetitive reverse current per leg at $t_p=2.0\mu\text{s}$, 1KHz			I_{RRM}	1.0	A
Operating junction temperature range			T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range			T_{STG}	-55 to +150	$^\circ\text{C}$
Maximum instantaneous forward voltage per leg	$I_F=10\text{A}$ $I_F=10\text{A}$	$T_C=25^\circ\text{C}$ $T_C=125^\circ\text{C}$	V_F	0.83 0.76	V
Maximum reverse current per leg at working peak Reverse voltage	$T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$		I_R	200 15	μA mA

Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	TYP (POWER QFN 5x6)	Unit
R θ JC	Thermal Resistance, Junction to Case per Leg	2.5	$^\circ\text{C}/\text{W}$
R θ JA	Thermal Resistance, Junction to Ambient per Leg	50	$^\circ\text{C}/\text{W}$

Note: Pulse test:300us pulse width, duty cycle=2%

Ratings and Characteristics Curves

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

FIG.1- FORWARD CURRENT DERATING CURVE

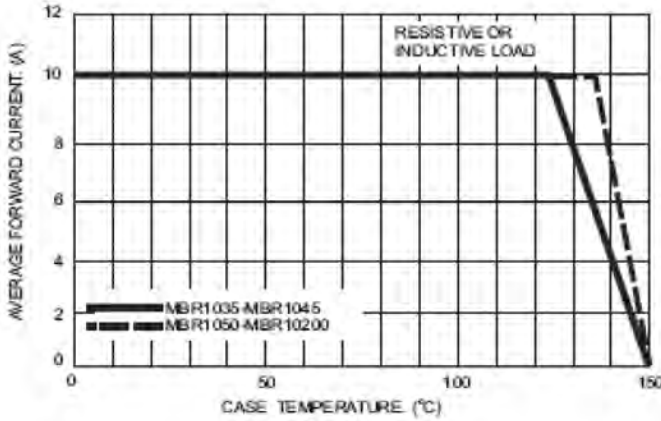


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

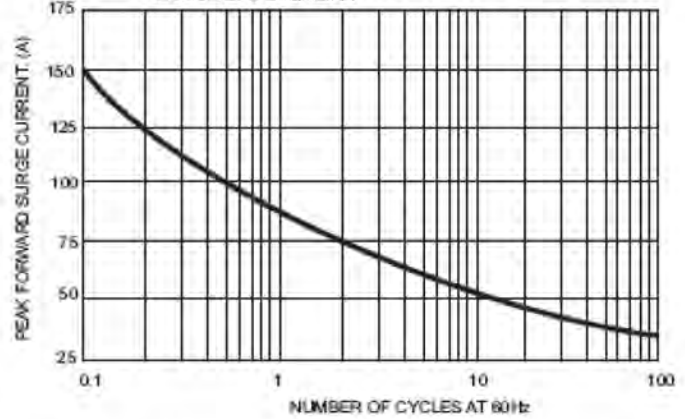


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

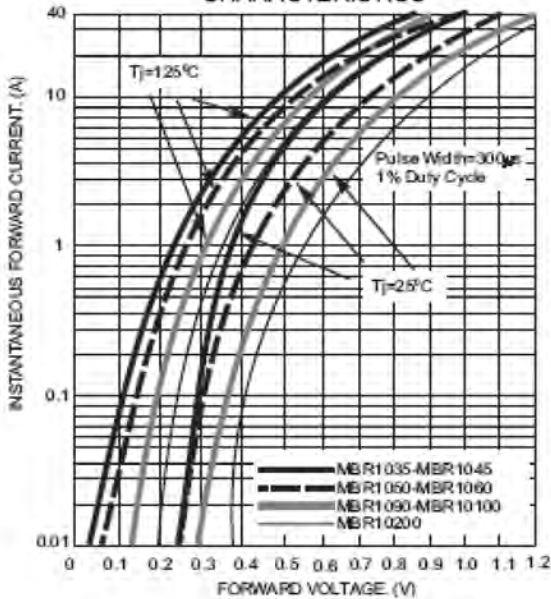


FIG.4- TYPICAL REVERSE CHARACTERISTICS

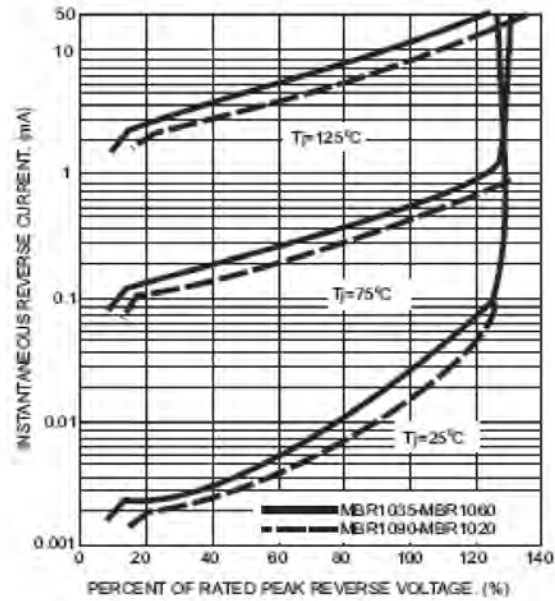


FIG.5- TYPICAL JUNCTION CAPACITANCE

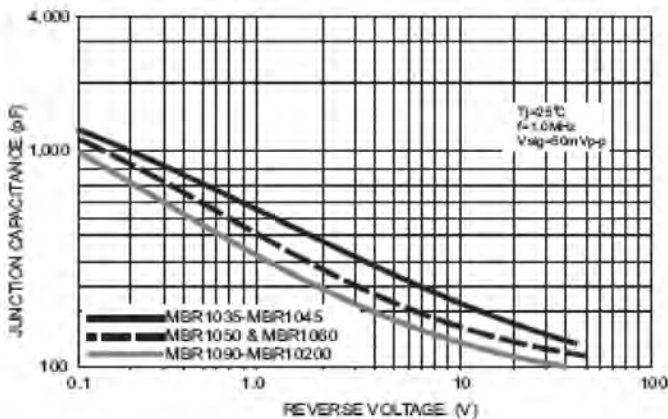
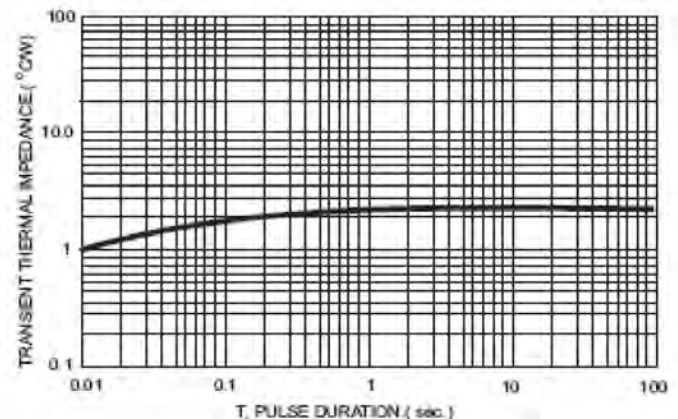


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTIC



Package Outline Dimensions

Unit: millimeters

POWER QFN 5x6

