

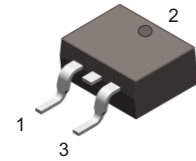
MBRB1060CT-HF

Reverse Voltage: 60V

Forward Current: 10A

RoHS Device

Halogen Free



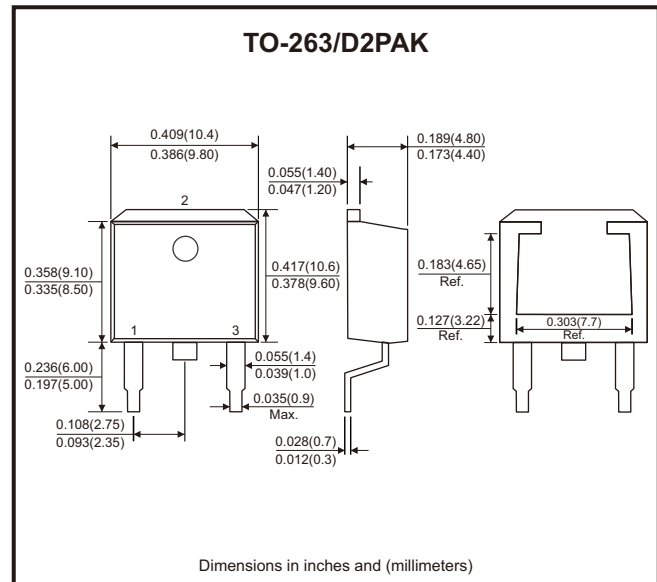
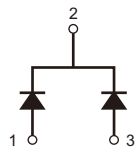
Features

- High current capability.
- Low forward voltage drop.
- Low power loss, high efficiency.
- High surge capability.
- High temperature soldering guaranteed.

Mechanical data

- Case: TO-263/D2PAK, molded plastic.
- Terminals: Lead solderable per MIL-STD-202, method 208.
- Polarity: As marked.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings and Electrical Characteristics (at $T_A=25^\circ\text{C}$, unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	V
Maximum DC blocking voltage	V_{DC}	60	V
Maximum average forward rectified current	I_O	5 10	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) per diode	I_{FSM}	100	A
Maximum instantaneous forward voltage at 5A DC per leg	V_F	0.75	V
Maximum DC reverse current at rated DC reverse voltage	I_R	0.1 20	mA
Typical junction capacitance (Note 1)	C_J	300	pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	45	$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Notes: 1. Measured at 1MHz and applied reverse voltage of 4V D.C.

2. P.C.B. mounted with 10mm x 10mm x 1mm copper pad areas.

Typical Rating and Characteristics Curves (MBRB1060CT-HF)

Fig.1 - Typical Forward Current Derating Curve

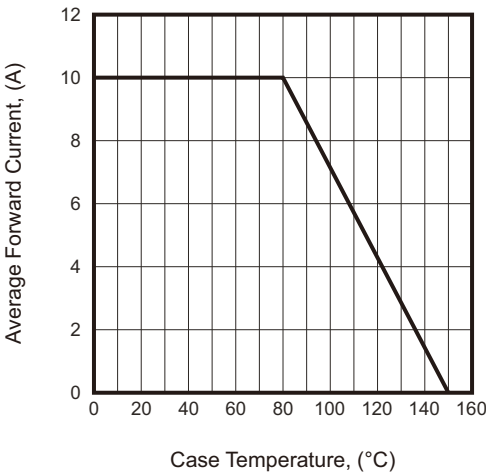


Fig.2 - Typical Reverse Characteristics

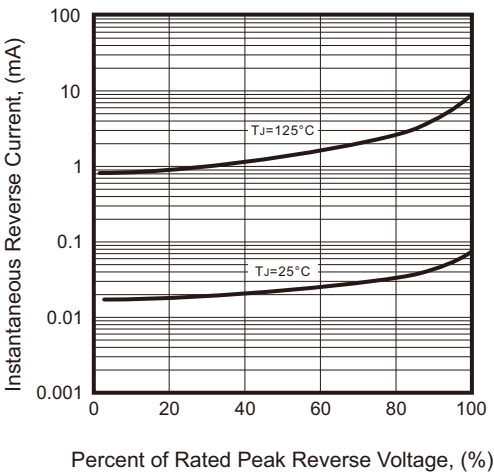


Fig.3 - Typical Forward Characteristics (per leg)

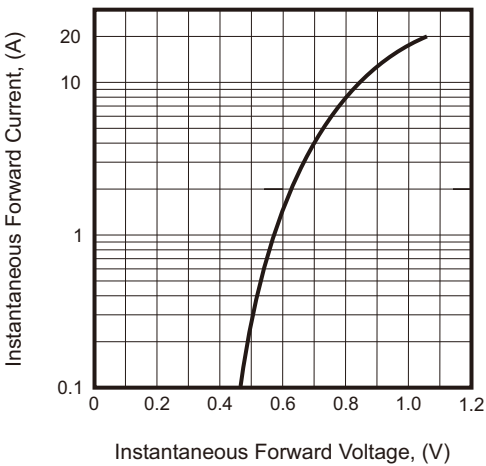


Fig.4 - Typical Junction Capacitance

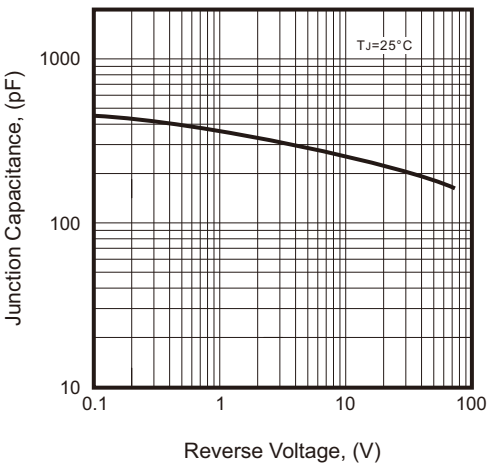


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current

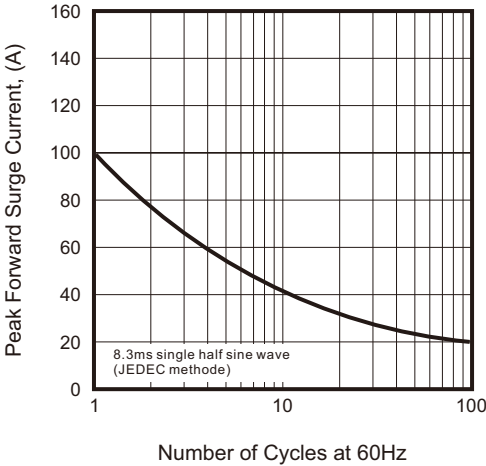
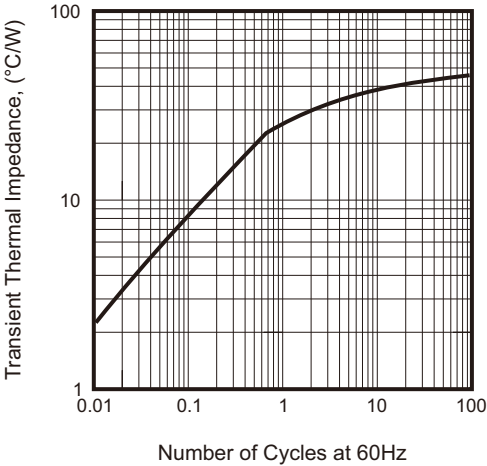
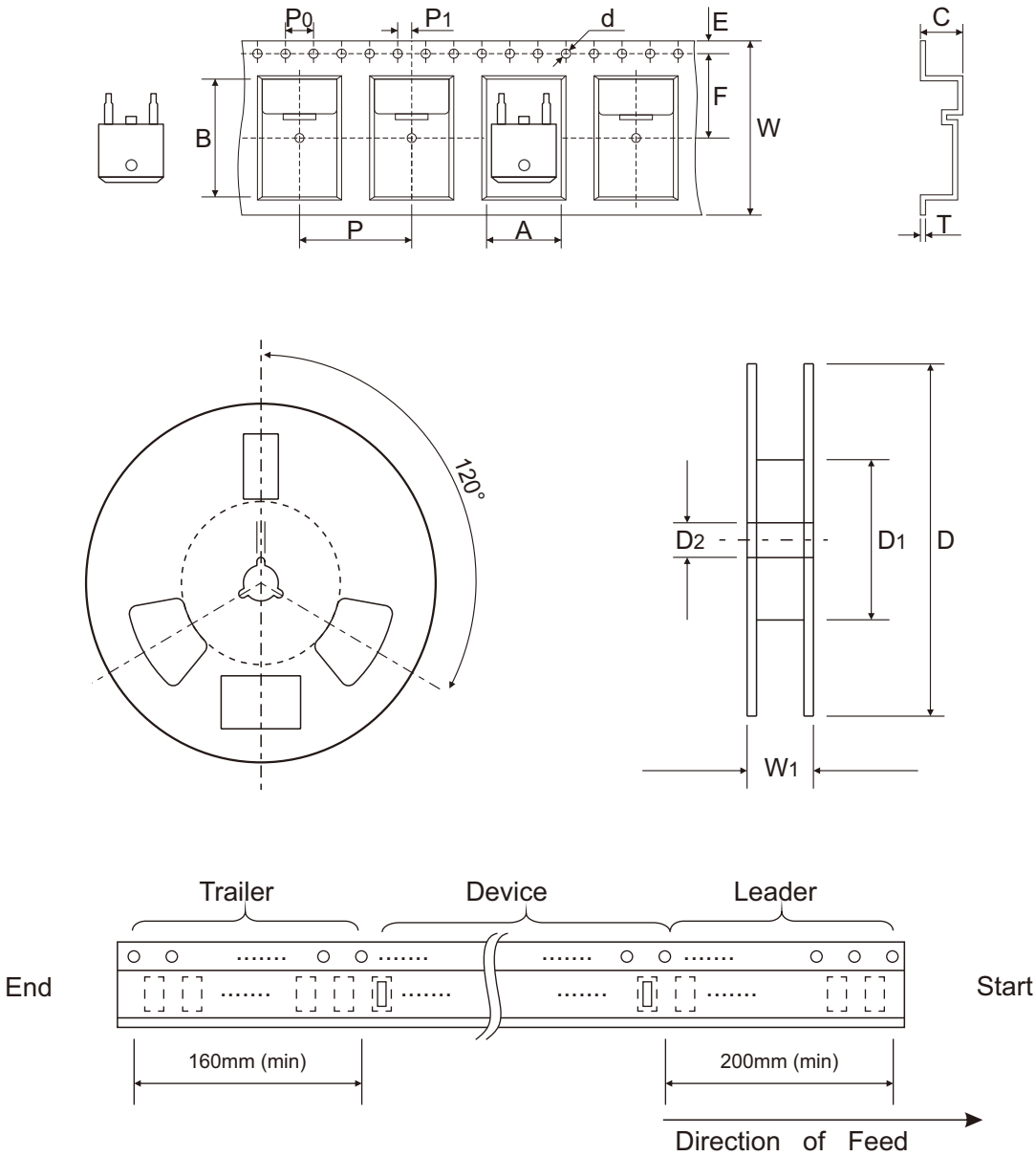


Fig.6 - Typical Transient Thermal Impedance



Reel Taping Specification

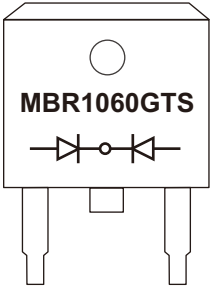


TO-263/ D2PAK	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	10.80 ± 0.10	16.13 ± 0.50	5.21 ± 0.10	1.55 ± 0.05	330.00 ± 3.00	100.00 ± 2.00	13.20 ± 0.30
	(inch)	0.425 ± 0.004	0.635 ± 0.020	0.205 ± 0.004	0.061 ± 0.002	12.992 ± 0.118	3.937 ± 0.079	0.520 ± 0.012

TO-263/ D2PAK	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	11.50 ± 0.10	16.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.35 ± 0.10	24.00 + 0.30 - 0.10	29.40 + 0.30 - 0.10
	(inch)	0.069 ± 0.004	0.453 ± 0.004	0.630 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.014 ± 0.004	0.945 + 0.012 - 0.004	1.157 + 0.012 - 0.004

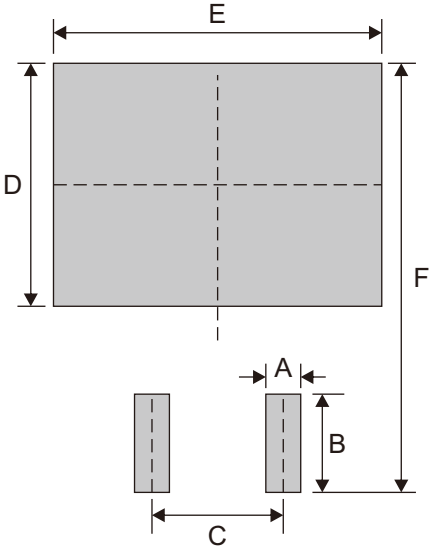
Marking Code

Part Number	Marking Code
MBRB1060CT-HF	MBR1060GTS



Suggested P.C.B. PAD Layout

SIZE	TO-263/D2PAK	
	(mm)	(inch)
A	1.35	0.053
B	3.80	0.150
C	5.08	0.200
D	9.40	0.370
E	12.70	0.500
F	16.60	0.654



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
TO-263/D2PAK	800	13