

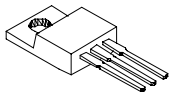
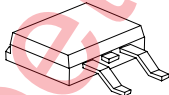
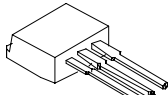
MBR1045CT-G/MBRB1045CT-G/MBR1045CT-1-G
SCHOTTKY RECTIFIER

Applications:

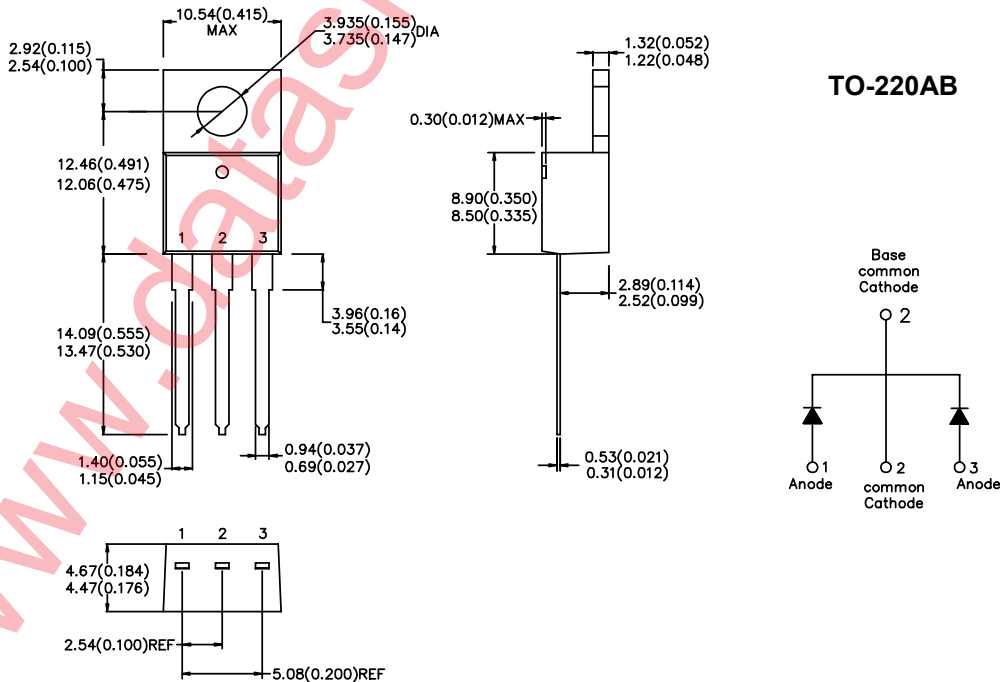
- Switching power supply • Converters • Free-Wheeling diodes • Reverse battery protection

Features:

- 150 °C T_J operation
- Center tap configuration
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability

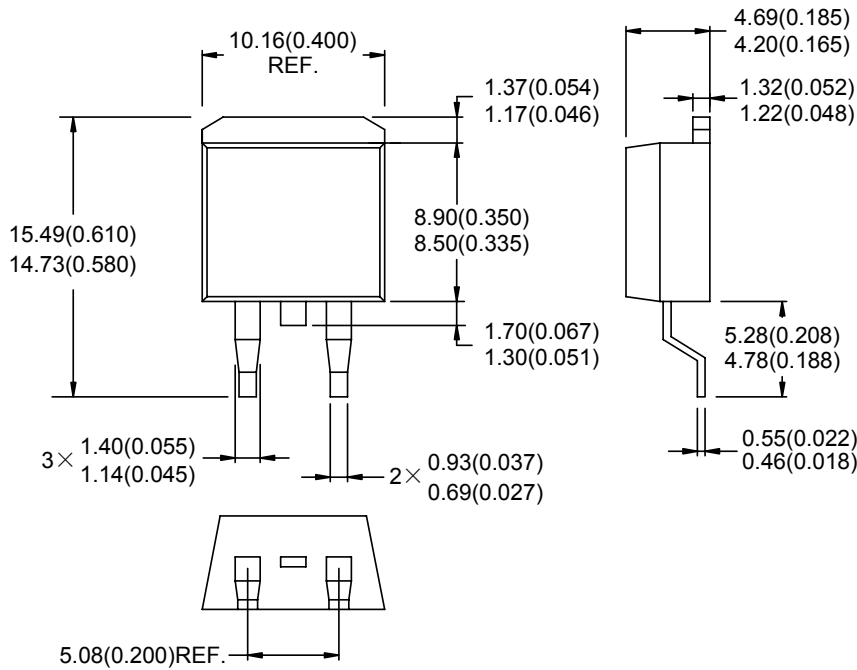
Case styles		
MBR1045CT-G	MBRB1045CT-G	MBR1045CT-1-G
		
TO-220AB	D²PAK	TO-262

Mechanical Dimensions: In Inches / mm

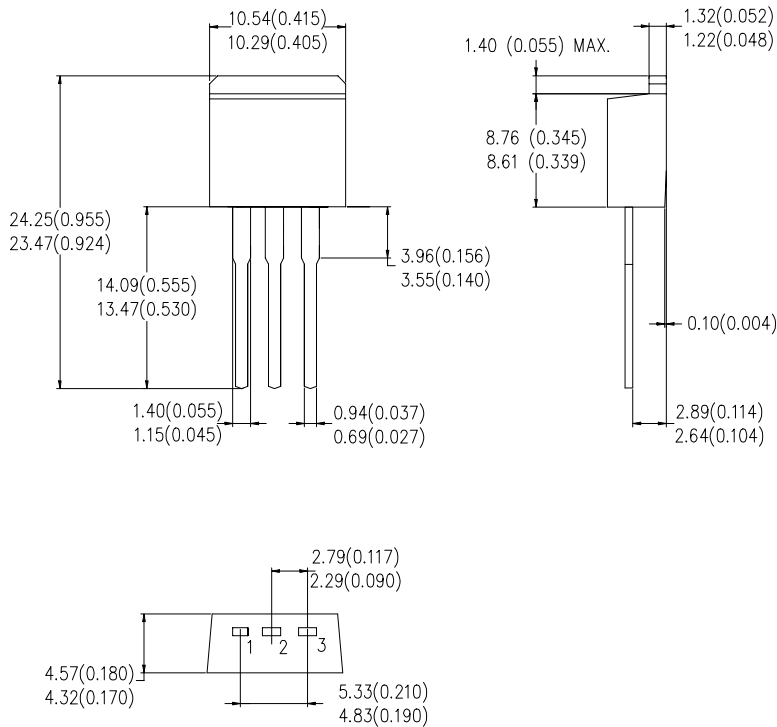
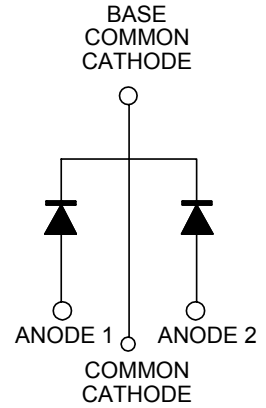


Technical Data
Data Sheet M2686, Rev. -

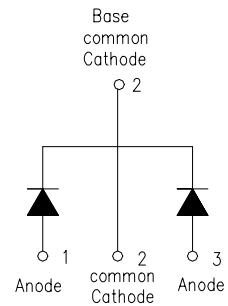
Green Products



D²PAK



TO-262



Technical Data
Data Sheet M2686, Rev. -

Green Products

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	45	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @ $T_C = 105^\circ\text{C}$, rectangular wave form	10	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	125	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 5A, Pulse, $T_J = 25^\circ\text{C}$	0.70	V
		@ 10A, Pulse, $T_J = 25^\circ\text{C}$	0.84	
	V_{F2}	@ 5A, Pulse, $T_J = 125^\circ\text{C}$	0.57	V
Max. Reverse Current (per leg) *	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	1.0	mA
		@ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$	15	
Max. Junction Capacitance (per leg)	C_T	@ $V_R = 4\text{V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	150	pF
Typical Series Inductance (per leg)	L_S	Measured lead to lead 5 mm from package body	8.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/ μs

* Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	2.0	$^\circ\text{C/W}$
Maximum Thermal Resistance, Junction to Case(Per package)	$R_{\theta JC}$	DC operation	1.0	$^\circ\text{C/W}$
Maximum Thermal Resistance, Case to Heat Sink	$R_{\theta CS}$	Mounting surface, smooth and greased (only for TO-220)	0.50	$^\circ\text{C/W}$
Approximate Weight	wt	-	2	g
Mounting Torque	T_M	-	6(Min.) 12(Max.)	Kg-cm
Case Style	TO-220AB D ² PAK TO-262			

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