MBR30300CT

RoHS
COMPLIANT

Typical Applications

Typical applications are in switching power supplies， converters， freewheeling diodes， and reverse battery protection.

Mechanical Data

- **Package: TO-220AB**
  Molding compound meets UL 94 V-0 flammability rating， RoHS-compliant
- **Terminals: Tin plated leads， solderable per J-STD-002 and JESD22-B102**
- **Polarity: As marked**

Maximum Ratings (T j = 25℃) Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MBR30300CT
Device marking code			MBR30300CT
Repetitive Peak Reverse Voltage	V_{RRM}	V	300
Average Rectified Output Current @60Hz sine wave， R-load， Tc(FIG.1)	I_O	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave， 1 cycle， Tj = 25℃	I_{FSM}	A	200
Current Squared Time @1ms≤t<8.3ms Tj = 25℃	I^2t	A^2s	167
Storage Temperature	Tstg	℃	-55 ~ +150
Junction Temperature	Tj	℃	-55 ~ +150

Electrical Characteristics（Tj = 25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V_{FM}	V	I_{FM} = 15.0A Tj = 25℃	0.50	0.92	1.30
			I_{FM} = 15.0A Tj = 125℃	-	0.80	0.85
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	V_{RM} = V_{RRM} T = 25℃	-	-	5
	I_{RRM2}	mA	V_{RM} = V_{RRM} T = 125℃	-	-	20
Junction capacitance	Cj	pF	1MHz and Applied Reverse Voltage of 4.0 V.D.C.	50	130	300

- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275℃ max. 7s, per JESD22-B106

yThermal Characteristics^ T j= 25N Unless otherwise specified

PARAMETER		SYMBOL	UNIT	MBR30300CT
Thermal Resistance	Between j unction and ambient	$R_{\theta J-A}$	ł /W	5 0.0
	Between j unction and case	$R_{\theta J-C}$	ł /W	2.0

yOrdering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR30300CT	Approximate 1. 9	5 0	1000	5 000	Tube

yCharacteristics (Typical)

Case Temperature