

TO-252 Surface Mount Schottky Barrier Rectifier

Features

- High surge capability
- Low forward voltage drop
- Low power loss, high efficiency
- High current capability

Applications

For use in low voltage high frequency inverters, free wheeling,DC/DC converters, and polarity protection applications.

Mechanical Data

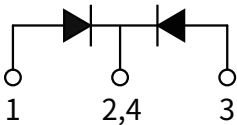
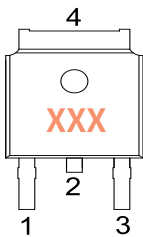
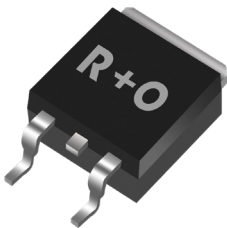
- Case: TO-252
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

Function Diagram

Reverse Voltage
60-200 V

Forward Current
30 Ampere

TO-252



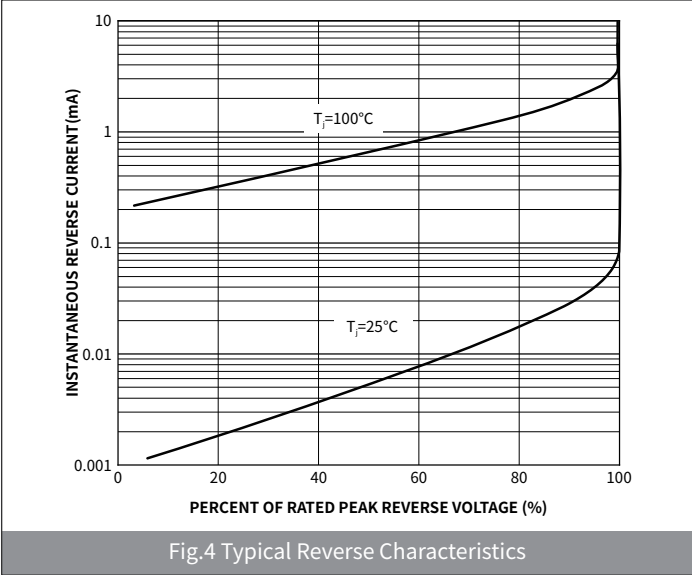
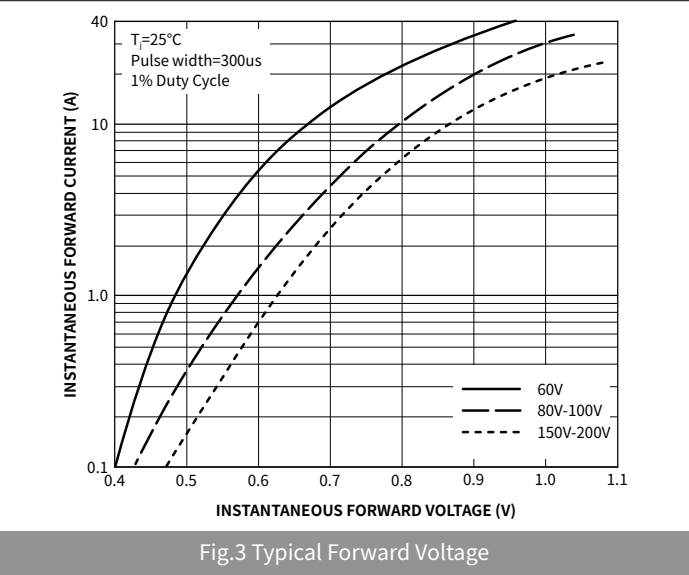
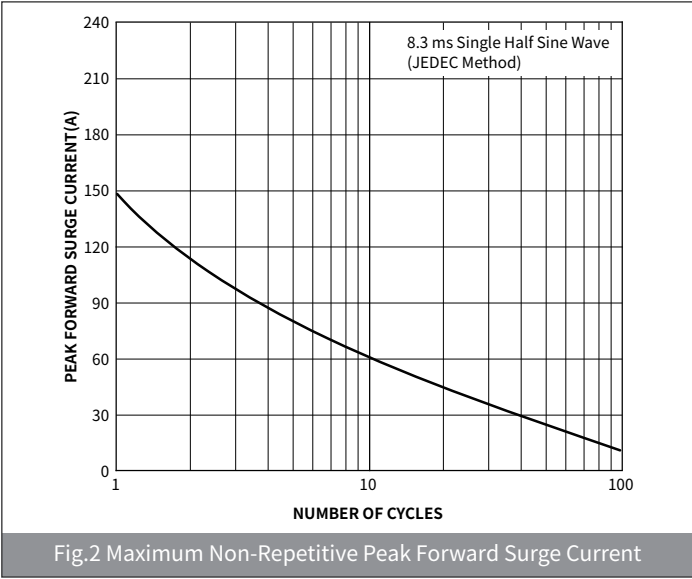
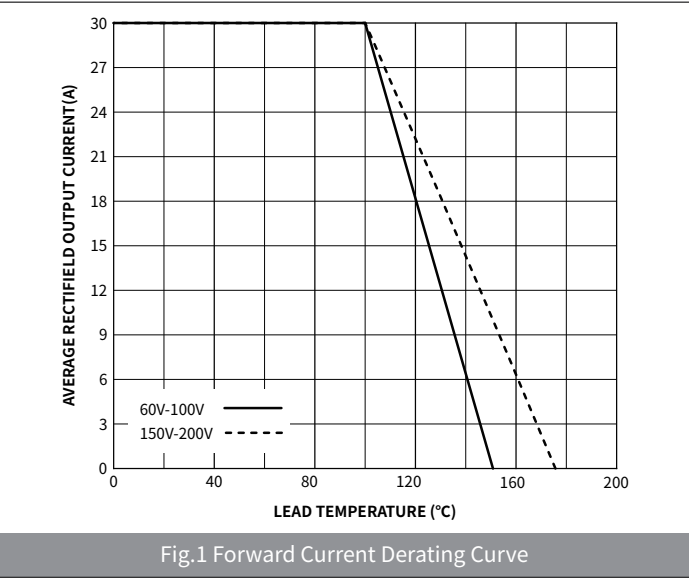
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRD 3060CT	MBRD 3080CT	MBRD 30100CT	MBRD 30150CT	MBRD 30200CT
Device marking code			MBRD 3060CT	MBRD 3080CT	MBRD 30100CT	MBRD 30150CT	MBRD 30200CT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V	42	56	70	105	140
Maximum DC blocking Voltage	V _{DC}	V	60	80	100	150	200
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	I _{F(AV)}	A	30				
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I _{FSM}	A	150				
Storage temperature	T _{stg}	°C	-55 ~ +150			-55 ~ +175	
Junction temperature	T _j	°C	-55 ~ +150			-55 ~ +175	
Typical Thermal Resistance	R _{θJA}	°C /W	45				

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MBRD 3060CT	MBRD 3080CT	MBRD 30100CT	MBRD 30150CT	MBRD 30200CT
Maximum instantaneous forward voltage	I _F =15A	V _F	V	0.75	0.85		0.90	0.92
Maximum DC reverse current at rated DC blocking voltage	V _R =V _{DC} , T _A =25°C	I _{R1}	mA	0.1				
	V _R =V _{DC} , T _A =125°C	I _{R2}		20				

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
TO-252	R3	0.305	2500	5000	45000	13"

● Package Outline Dimensions (TO-252)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A2	0.90	1.10	0.035	0.043
b	0.66	0.86	0.026	0.034
b1	5.10	5.46	0.201	0.215
b2	4.27	4.37	0.168	0.172
b3	0.78	0.90	0.031	0.035
c	0.45	0.55	0.018	0.022
D	5.90	6.30	0.232	0.248
D1	5.35 REF.		0.211 REF.	
E	6.30	6.70	0.248	0.264
E1	4.83 REF.		0.190 REF.	
e	2.18	2.38	0.086	0.094
H	9.80	10.4	0.386	0.409
L1	2.70	3.10	0.106	0.122
L3	0.80	1.20	0.031	0.047
L4	0.60	1.00	0.024	0.039
L5	1.8 REF.		0.071 REF.	
L6	-	0.12	-	0.005

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
a	3.70	-	0.146	-
b	4.37	-	0.172	-
X	-	5.80	-	0.228
X1	-	1.20	-	0.047
Y	-	5.85	-	0.230
Y1	-	2.00	-	0.079