



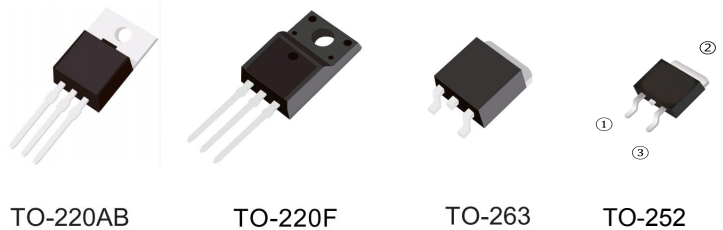
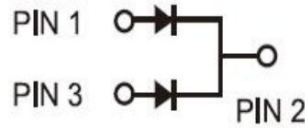
Schottky Diodes
Reverse Voltage-40to200v
Forward current-20A

Features

- Schottky chip
- Ideal for surface mounted applications
- Low forward voltage drop, Low power loss, high efficiency
- Plastic Case Material has UL Flammability

Mechanical Data

- Package: TO-220AB, TO-220F, TO-263, TO-252
- Terminals: Tin Plated leads, solderable per Mil-STD-750 Method 2026
- Polarity: As marked
- Molding compound meets UL 94 V-0 flammability rating, ROHS-compliant



Maximum Ratings (Ta=25°C Unless otherwise)

Type Number	SYMBOL	MBR 2040	MBR 2060	MBR 20100	MBR 20150	MBR 20200	Umit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	100	150	200	V
Maximum Average Forward Rectified Current at TL = 100 °C	$I_{Q(AV)}$	20.0					A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	130.0					A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C		260.0					A
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I^2t	70					A ² S
Maximum Forward Voltage at 10.0A DC	V_{FM}	0.6	0.75	0.85	0.9	0.95	V
Maximum Reverse Current TA = 25°C	IR	0.2		0.1			mA
at Rated DC Blocking Voltage TA = 100°C		50		20			mA
Typical Junction Capacitance	CJ	400		300			pF
Typical Thermal Resistance TO-220AB, TO-263	R _{QJC}	2.0					°C/W
TO-220F		4.0					
TO-252		5.0					
Operating Junction Temperature Range	T _J	-55to+150					°C
Storage Temperature Range	T _{STG}	-55to+150					°C



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

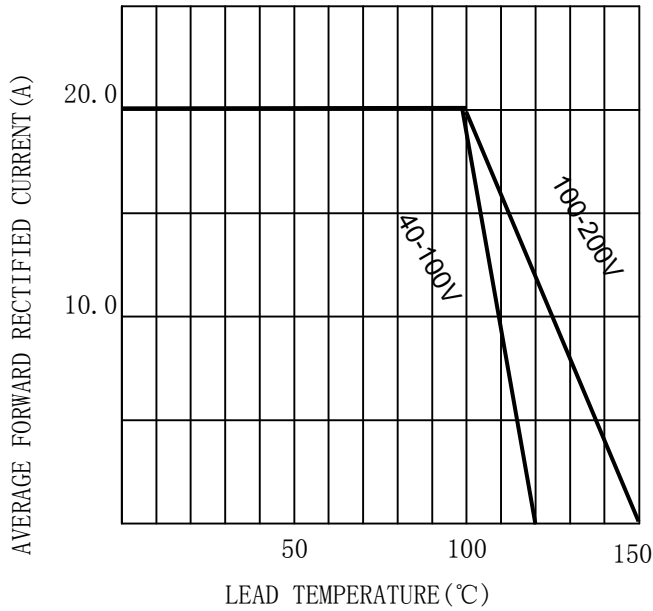


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

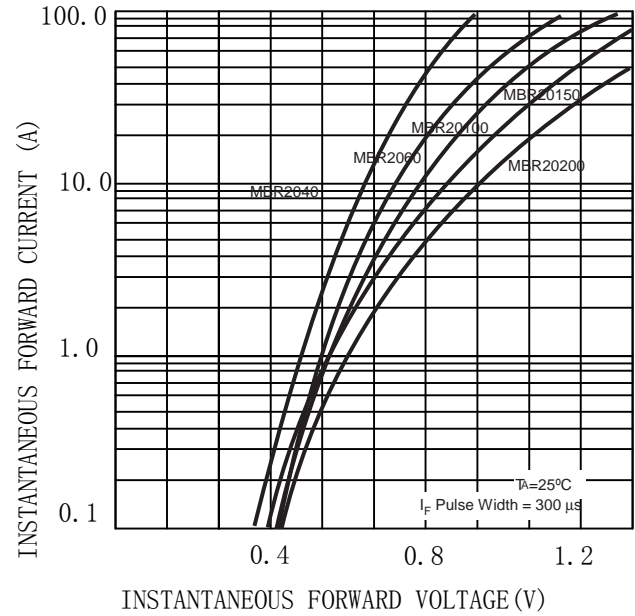


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

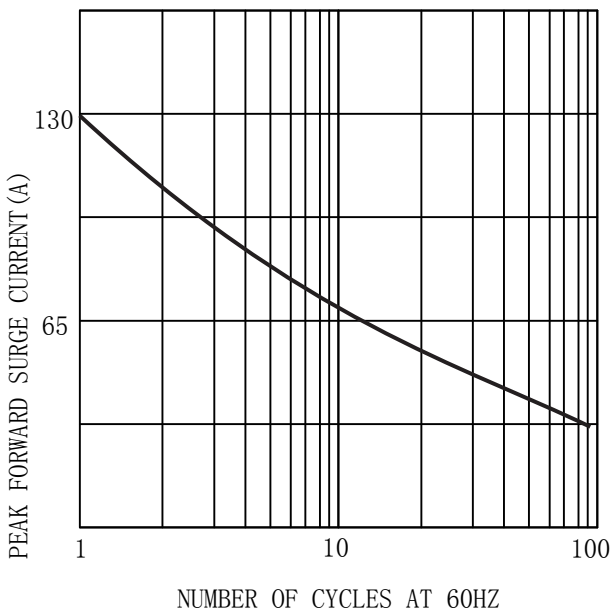
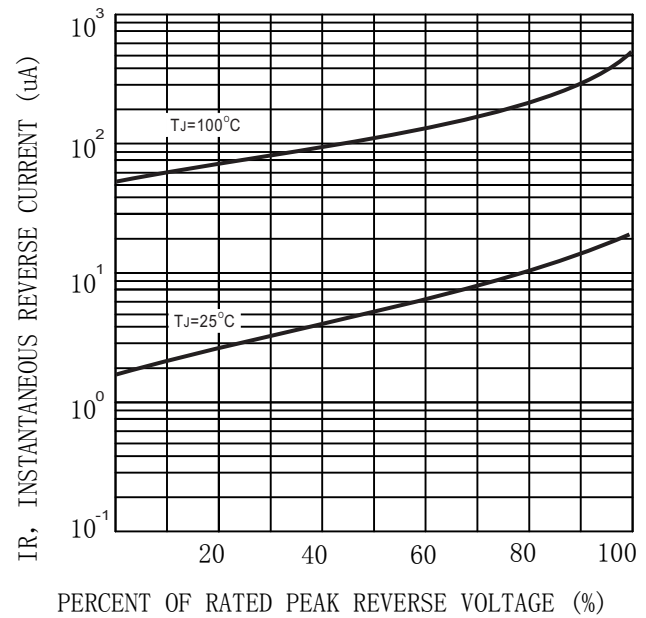


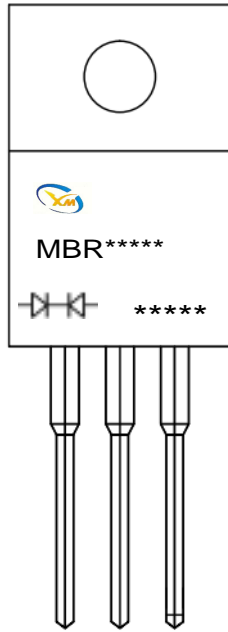
FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION

TO-220AB/CT



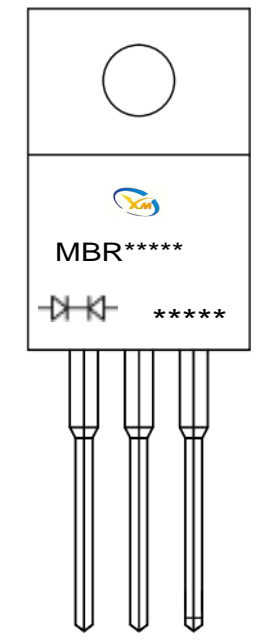
= Polar line

= Logo

***** = Date Code Marking

MBR***** = Marking Code

TO-220F/FCT



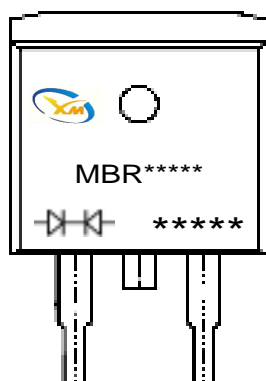
= Polar line

= Logo

***** = Date Code Marking

MBR***** = Marking Code

TO-263/CS
TO-252/DS



= Polar line

= Logo

***** = Date Code Marking

MBR***** = Marking Code



Package Outline Dimensions millimeters

TO-220AB/CT					
DIM	INCHES		MM		NOTE
	min	max	min	max	
A	—	0.41	—	10.30	
B	0.33	0.34	8.30	8.70	
C	0.18	0.19	4.50	4.90	
D	0.57	0.60	14.60	15.20	
E	0.53	0.56	13.50	14.10	
a	0.10	0.10	2.45	2.65	
b	—	0.16	—	4.10	
c	0.03	0.04	0.72	0.92	
d	0.01	0.02	0.30	0.50	
e	—	0.15	—	3.80	∅
f	0.05	0.06	1.20	1.40	

TO-220F/FCT					
DIM	INCHES		MM		NOTE
	min	max	min	max	
A	—	0.41	—	10.30	
B	0.61	0.64	15.60	16.20	
C	0.18	0.19	4.50	4.90	
D	0.26	0.28	6.60	7.00	
E	0.50	0.53	12.80	13.40	
a	0.10	0.10	2.45	2.65	
b	—	0.16	—	4.10	
c	0.03	0.04	0.72	0.92	
d	0.02	0.02	0.40	0.60	
e	—	0.15	—	3.80	∅
f	0.09	0.11	2.40	2.80	

TO-263/CS					
DIM	INCHES		MM		NOTE
	min	max	min	max	
A	—	0.41	—	10.30	
B	0.33	0.34	8.30	8.70	
C	0.18	0.19	4.50	4.90	
D	0.38	0.39	9.60	10.00	
E	0.21	0.22	5.30	5.70	
a	0.10	0.10	2.45	2.65	
b	—	0.16	—	4.10	
c	0.03	0.04	0.72	0.92	
d	0.01	0.02	0.30	0.50	
e	0.05	0.06	1.20	1.40	



TO-252DS					
DIM	INCHES		MM		NOTE
	min	max	min	max	
A	0.25	0.27	6.3	6.9	
B	0.23	0.25	5.8	6.4	
C	0.08	0.10	2.1	2.5	
D	0.35	0.43	9.0	11.0	
E	0.21	0.22	5.3	5.5	
a	0.08	0.10	2.1	2.5	
b	0.06	0.06	1.4	1.6	
c	0.02	0.03	0.6	0.8	
d	0.02	0.02	0.4	0.6	
e	0.02	0.02	0.4	0.6	

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