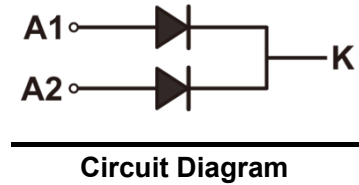
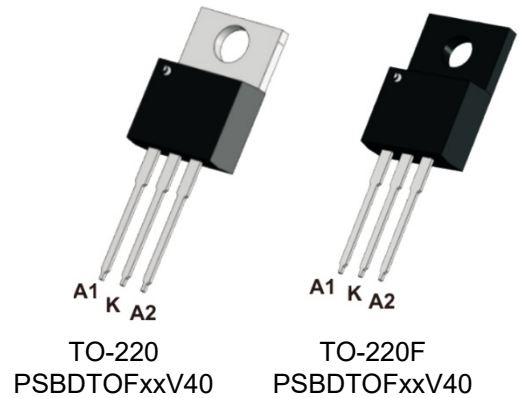


Feature

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

Mechanical Characteristics

- Case: TO-220
- Approx. Weight: 1.9g (0.067oz)
- Case: TO-220F
- Approx. Weight: 2.1g (0.07oz)
- Terminals: Lead solderable per MIL-STD-202, Method 208



Maximum Ratings and Thermal Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	PSBDTO 40V40	PSBDTO 45V40	PSBDTO 60V40	PSBDTO 100V40	PSBDTO 150V40	PSBDTO 200V40	Units	
		PSBDTO F40V40	PSBDTO F45V40	PSBDTO F60V40	PSBDTO F100V40	PSBDTO F150V40	PSBDTO F200V40		
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	45	60	100	150	200	V	
Maximum RMS voltage	V _{RMS}	28	31.5	42	70	105	140	V	
Maximum DC Blocking Voltage	V _{DC}	40	45	60	100	150	200	V	
Maximum Average Forward Rectified Current per diode per device	I _{F(AV)}	20 40						A	
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	250						A	
Maximum Forward Voltage at 20 A	V _F	0.75		0.80	0.88	0.92	0.95	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage T _a = 25 °C T _a = 125 °C	I _R	0.1 20			0.05 20			mA	
Typical Junction Capacitance Per Element ¹⁾	C _J	800		600				pF	
Typical Thermal Resistance TO-220 TO-220F	R _{θJC}	2.0 4.0							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55~+150				-55~+175			°C

Notes:

- 1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Typical Characteristics

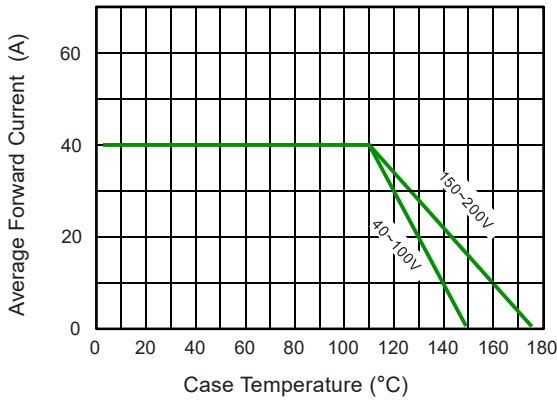


Fig.1 Typical Forward Current Derating Curve

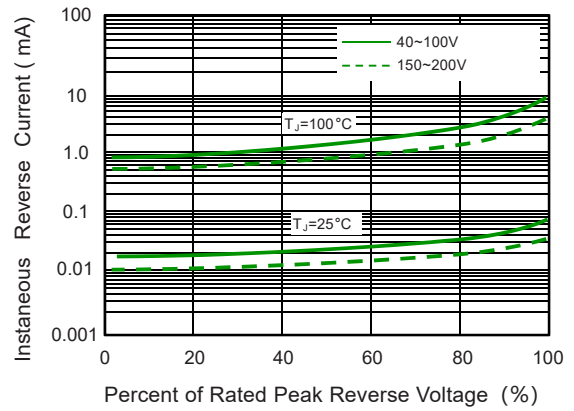


Fig.2 Typical Reverse Characteristics

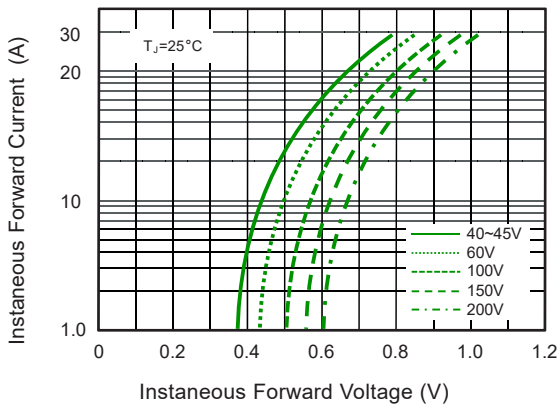


Fig.3 Typical Forward Characteristic(per leg)

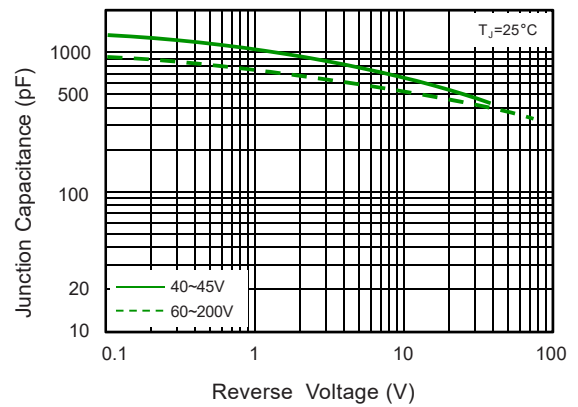


Fig.4 Typical Junction Capacitance

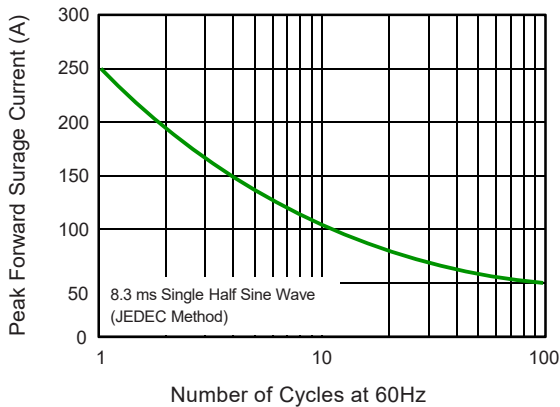


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

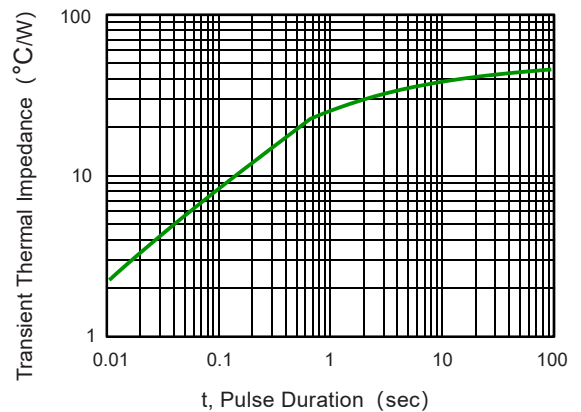
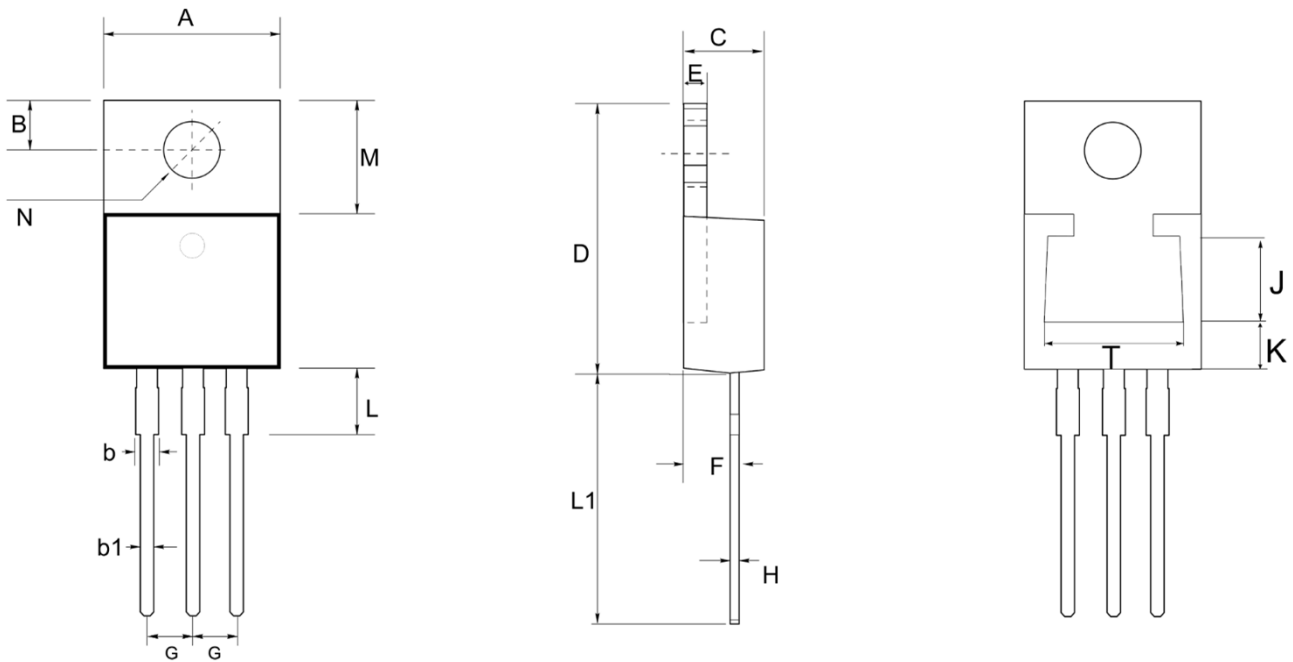


Fig.6- Typical Transient Thermal Impedance

Schottky Barrier Rectifiers

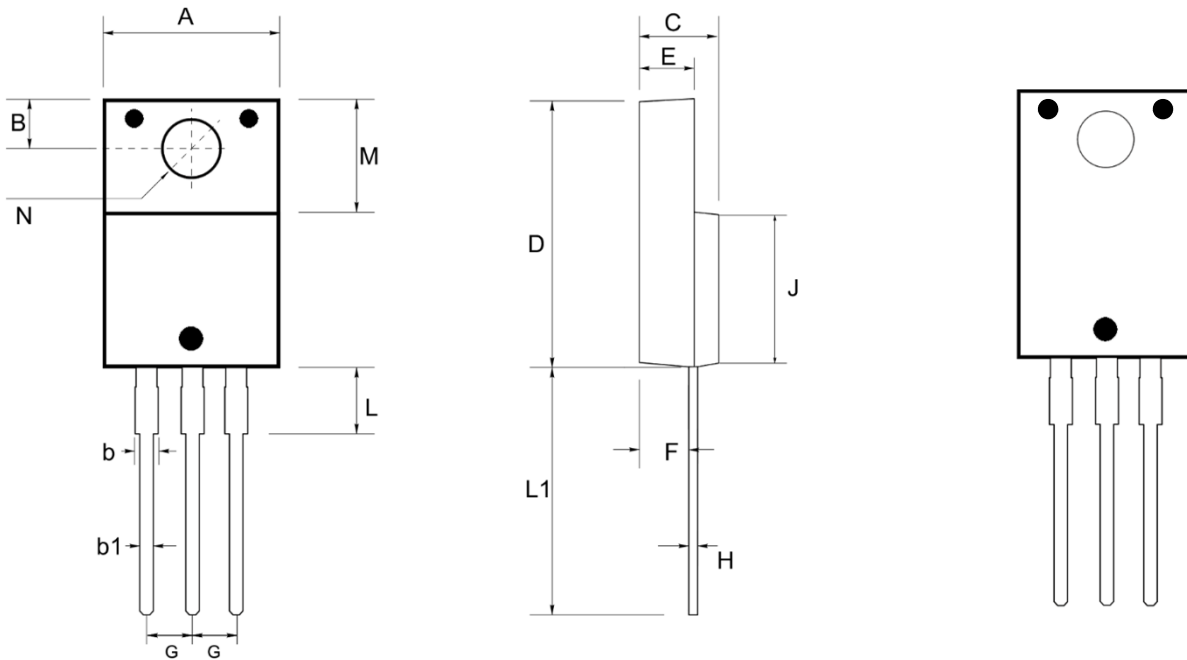
Product dimension (TO-220)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	9.85	10.45	0.388	0.411
B	2.54	2.94	0.100	0.116
b	1.14	1.77	0.045	0.070
b1	0.62	0.94	0.024	0.037
C	4.42	4.76	0.174	0.187
D	14.60	16.00	0.575	0.630
E	1.14	1.40	0.045	0.055
F	2.20	2.80	0.087	0.110
G	2.54 Typ.		0.100 Typ.	
H	0.35	0.64	0.014	0.025
L	2.80	4.20	0.110	0.165
L1	13.08	14.79	0.515	0.582
M	6.60 Typ.		0.260 Typ.	
N	3.80 Typ.		0.150 Typ.	
J	4.65 Ref.		0.183 Ref.	
T	7.70 Ref.		0.303 Ref.	
K	3.22 Ref.		0.127 Ref.	


Schottky Barrier Rectifiers

Product dimension (TO-220F)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	9.85	10.50	0.388	0.413
B	2.54	2.85	0.100	0.112
b	1.10	1.40	0.043	0.055
b1	0.50	0.80	0.020	0.031
C	4.40	4.70	0.173	0.185
D	14.70	16.00	0.579	0.630
E	2.50	2.90	0.098	0.114
F	2.50	2.80	0.098	0.110
G	2.54 Typ.		0.100 Typ.	
H	0.41	0.70	0.016	0.028
L	2.30	2.90	0.091	0.114
L1	13.00	14.30	0.512	0.563
M	6.30	7.00	0.248	0.276
N	3.40 Typ.		0.134 Typ.	


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