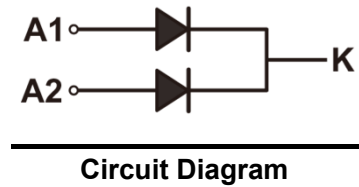
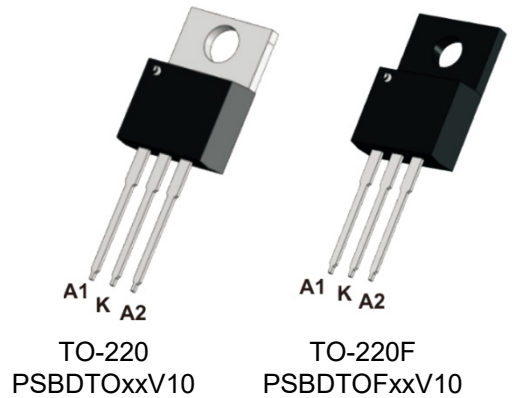


Feature

- 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 ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	PSBDTO 40V10	PSBDTO 45V10	PSBDTO 60V10	PSBDTO 100V10	PSBDTO 150V10	PSBDTO 200V10	Units	
		PSBDTO F40V10	PSBDTO F45V10	PSBDTO F60V10	PSBDTO F100V10	PSBDTO F150V10	PSBDTO F200V10		
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	$I_{F(AV)}$	5.0 10						A	
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	100						A	
Maximum Forward Voltage at 5.0 A	V_F	0.70		0.75	0.85	0.90	0.92	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	0.1 20			0.05 20			mA	
Typical Junction Capacitance Per Element ¹⁾	C_J	300		200				pF	
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	45						$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-55~+150				-55~+175			$^\circ\text{C}$

Notes:

- 1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 2) Mounted on 10cm x 10cm x 1mm copper pad area

Typical Characteristics

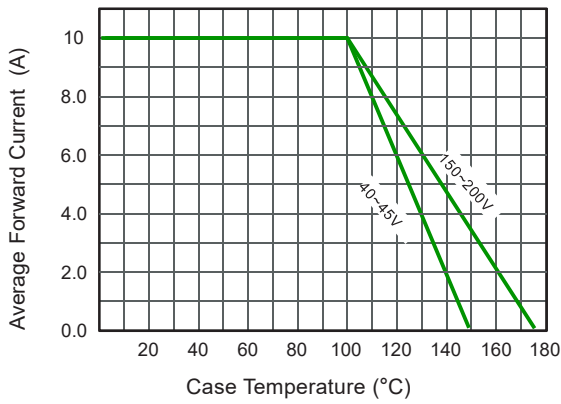


Fig.1 Typical Forward Current Derating Curve

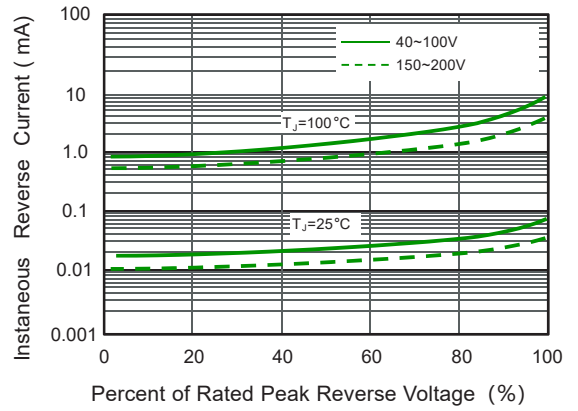


Fig.2 Typical Reverse Characteristics

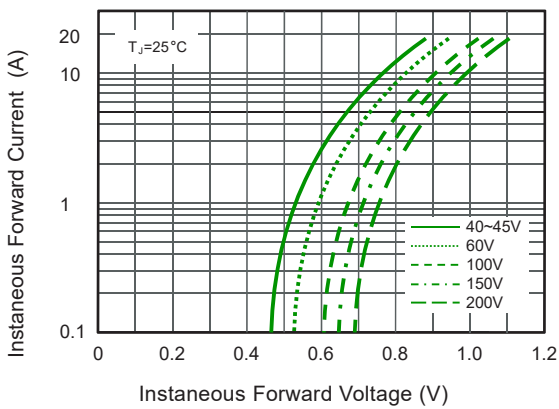


Fig.3 Typical Forward Characteristic(per leg)

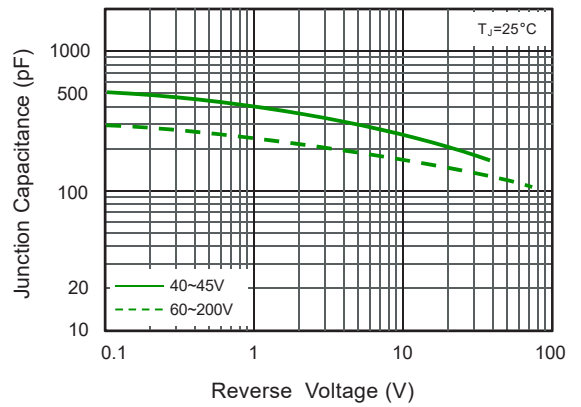


Fig.4 Typical Junction Capacitance

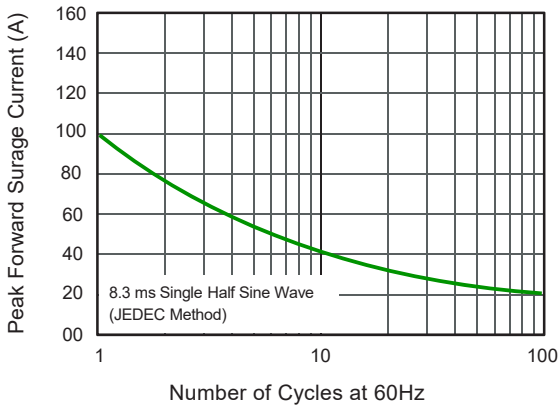


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

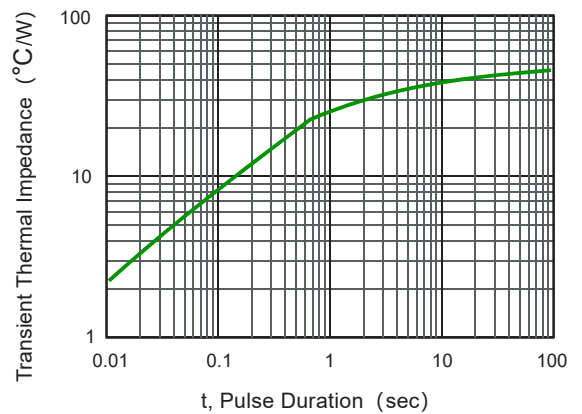
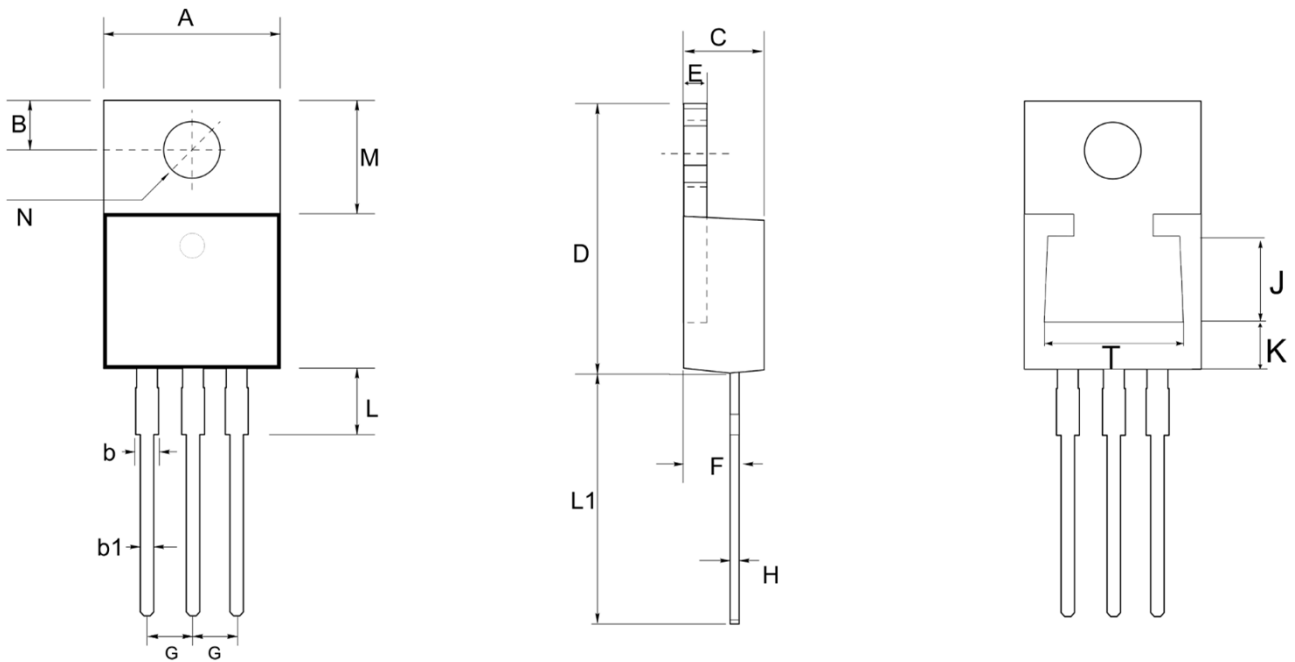


Fig.6 Typical Transient Thermal Impedance

Schottky Barrier Rectifiers

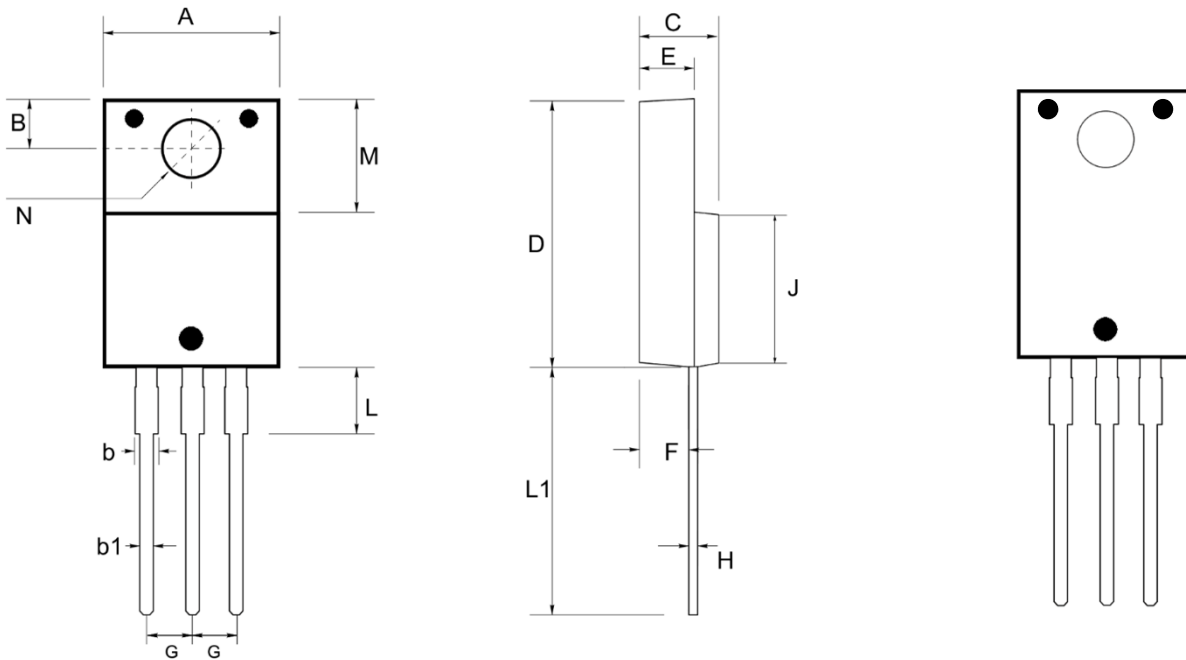
Product dimension (TO-220)



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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