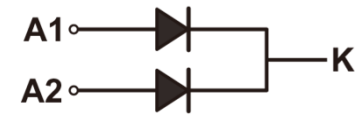
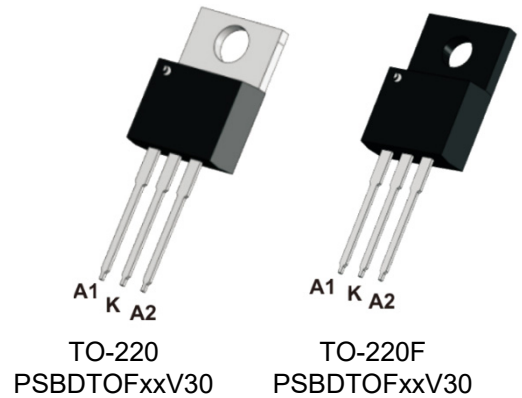


Feature

- 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



Circuit Diagram

Maximum Ratings and Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	PSBDTO 40V30	PSBDTO 45V30	PSBDTO 60V30	PSBDTO 100V30	PSBDTO 150V30	PSBDTO 200V30	Units
		PSBDTO F40V30	PSBDTO F45V30	PSBDTO F60V30	PSBDTO F100V30	PSBDTO F150V30	PSBDTO F200V30	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	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	$I_{F(AV)}$	15 30						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200						A
Maximum Forward Voltage at 15 A	V_F	0.75	0.80	0.88	0.92	0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	0.1 20			0.05 20			mA
Typical Junction Capacitance Per Element ¹⁾	C_J	600		400				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) P.C.B. mounted with 10cm X 10cm X 1mm copper pad areas.

Typical Characteristics

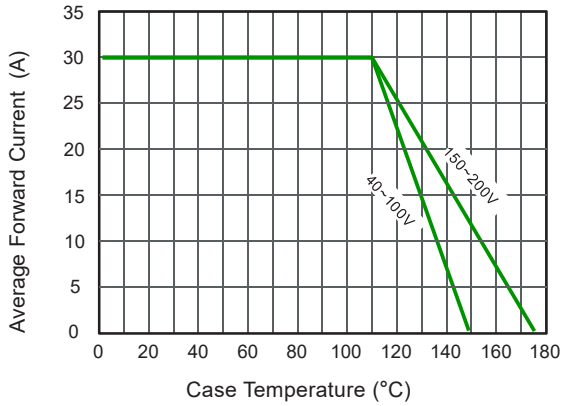


Fig.1 Typical Forward Current Derating Curve

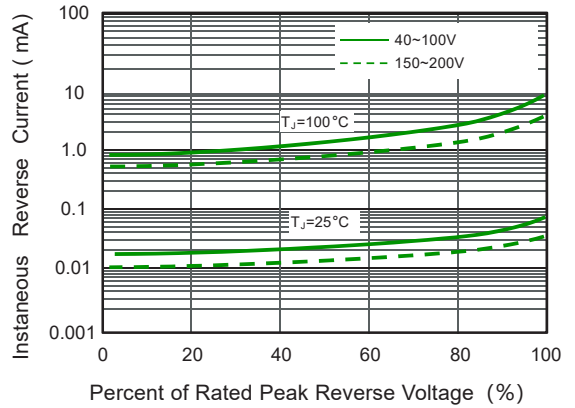


Fig.2 Typical Reverse Characteristics

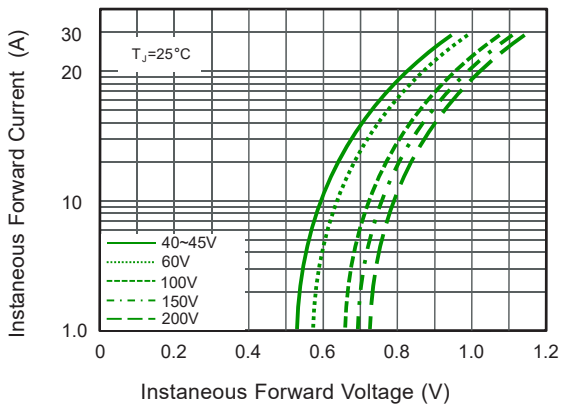


Fig.3 Typical Forward Characteristic(per leg)

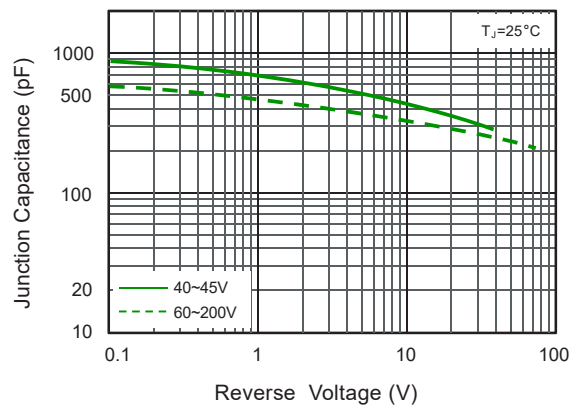


Fig.4 Typical Junction Capacitance

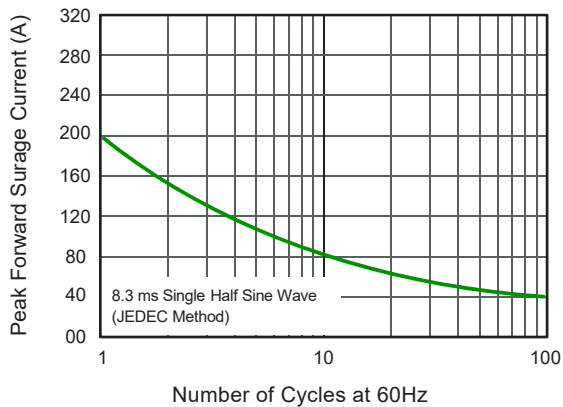


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

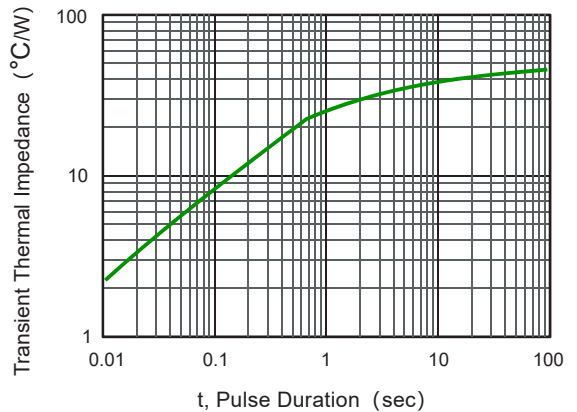
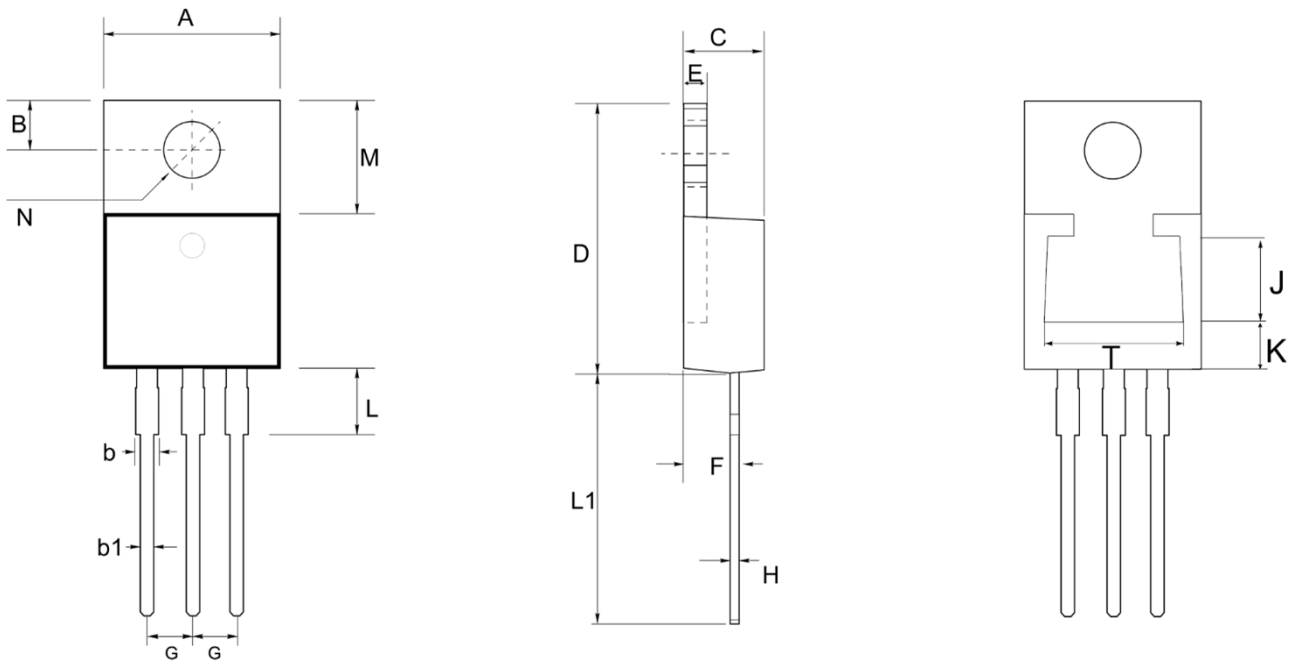


Fig.6- Typical Transient Thermal Impedance

Schottky Barrier Rectifiers

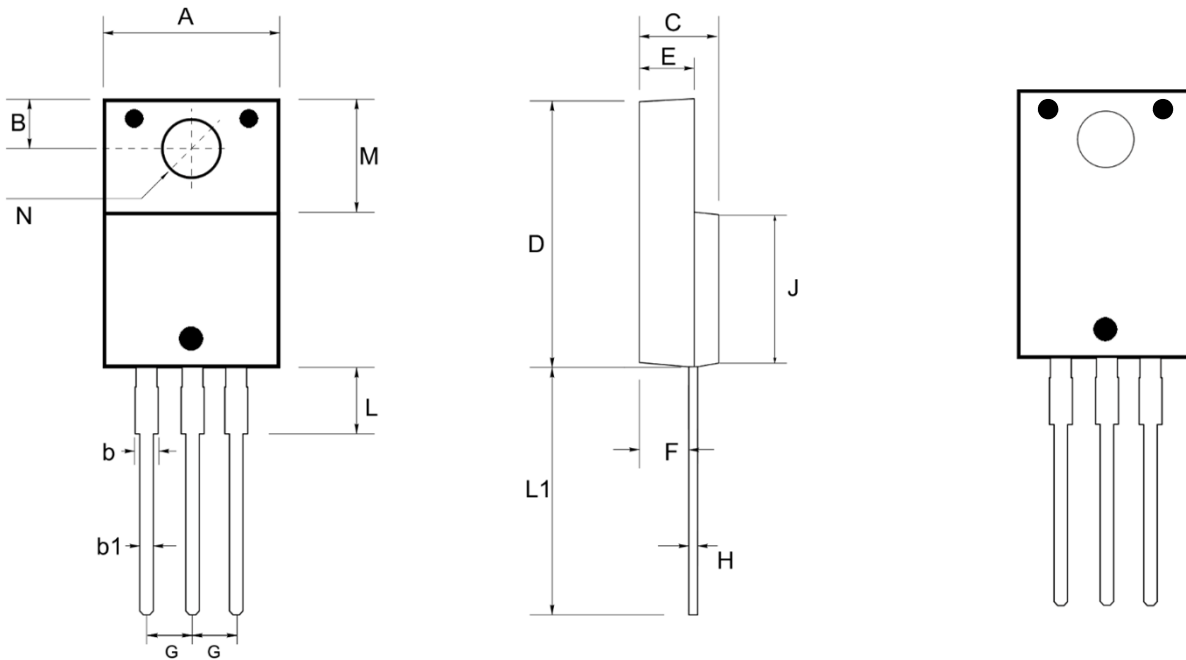
Product dimension (TO-220)



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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