



20A Dual Common Anode Ultra Fast Recovery Diodes

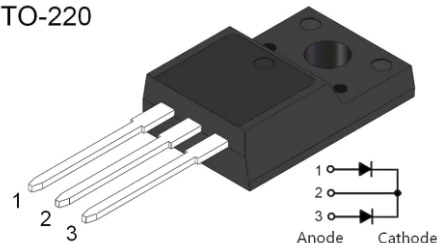
Features

- Fast switching for high efficiency
- High current capability
- Low forward voltage drop
- High surge current capability
- Low reverse leakage current

Mechanical Data

- Case: TO-220 heatsink
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked on body
- Mounting position: Any

TO-220



Absolute Maximum Rating (Ta=25°C)

Rating		Symbol	Value	Unit
Peak Repetitive Reverse Voltage		V_{RRM}	400	V
Maximum RMS Voltage		V_{RMS}	280	V
DC Blocking Voltage		V_{DC}	400	V
Average rectified output current	Per Leg	$I_{F(AV)}$	10	A
	Total		20	
Non-Repetitive peak forward surge current 8.3ms half sine wave		I_{FSM}	170	A
Junction Temperature		T_j	150	°C
Storage Temperature		T_{stg}	-40 ~ +150	°C
Thermal resistance from junction to Case (Note1)		$R_{\theta JC}$	2.0	°C/W
Thermal resistance from junction to Lead (Note1)		$R_{\theta JL}$	4.0	°C/W

Electrical Characteristics (Per Leg) (unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse current	I_R	$V_R=400V, T_A = 25^\circ C$			10	μA
		$V_R=400V, T_S = 100^\circ C$			250	μA
Forward voltage (Note2)	V_F	$I_F = 10 A$			1.3	V
Reverse recovery time	t_{rr}	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$		35		ns
Typical junction Capacitance	C_J	$V_R=4V, f=1MHz$		70		pF

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Note2: Pulse test: 300 μs pulse width, 1% duty cycle



Typical Characteristics

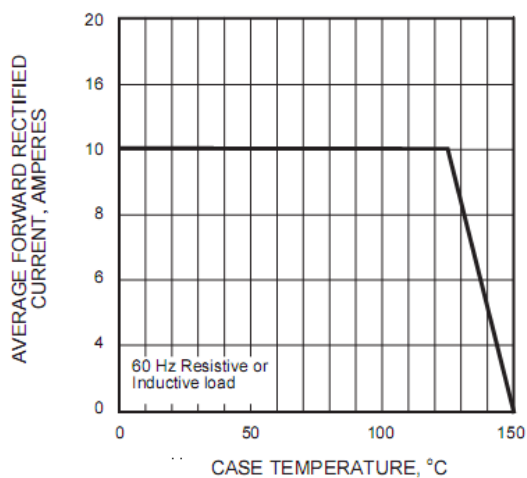


Figure 1. Forward Current derating Curve

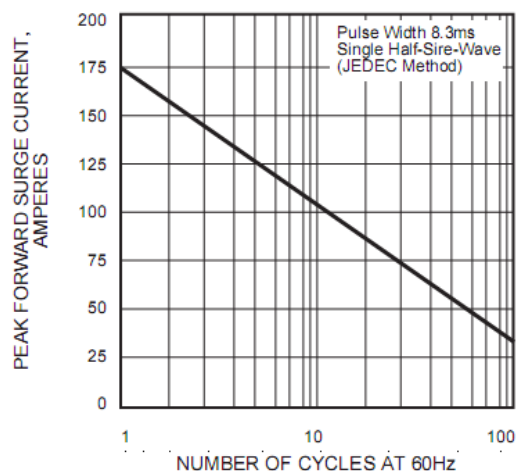


Figure 2. Peak Forward surge Current

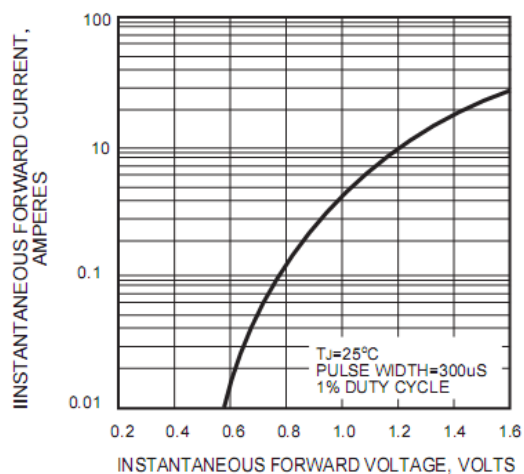


Figure 3. Forward Characteristics

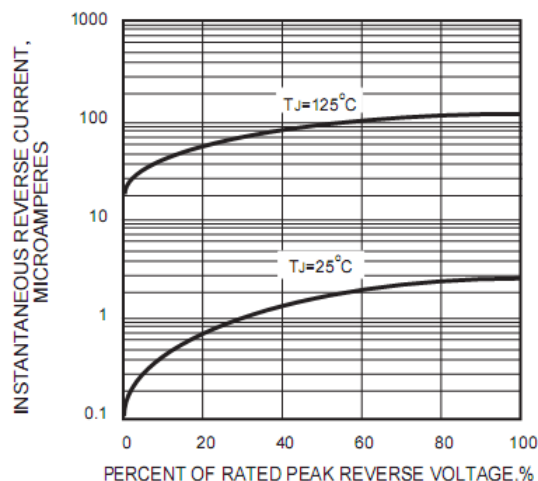


Figure 4. Reverse Characteristics

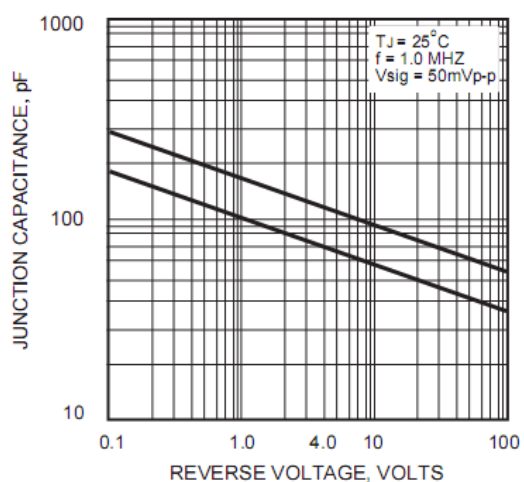
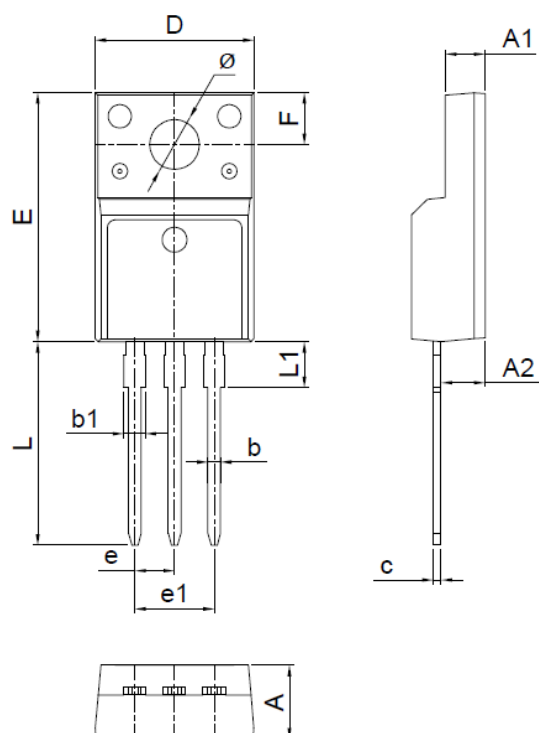


Figure 5. Junction Characteristics

**Package Dimensions**

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
A1	2.34	2.74	0.092	0.108
A2	2.66	2.86	0.105	0.113
b	0.75	0.85	0.030	0.033
b1	1.24	1.44	0.049	0.057
c	0.40	0.60	0.016	0.024
D	10.00	10.32	0.394	0.406
E	15.75	16.05	0.620	0.632
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	3.10	3.5	0.122	0.138
L	12.90	13.50	0.508	0.531
L1	2.90	3.30	0.114	0.130
Φ	3.10	3.30	0.122	0.130