

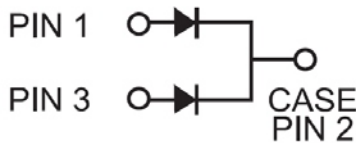
### FEATURES

- ✧ High current capability, low forward voltage
- ✧ Excellent high temperature stability
- ✧ Low power loss, and high efficiency
- ✧ High forward surge capability
- ✧ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ✧ RoHS compliant

### ORDERING INFORMATION

- ✧ Device:  
T4045CT  
T4045FCT
- ✧ Package: TO-220/TO-220F
- ✧ Marking: As marked
- ✧ Material: RoHS compliant
- ✧ Packing: Plastic tube
- ✧ Quantity per tube: 50pcs

### PIN CONFIGURATION



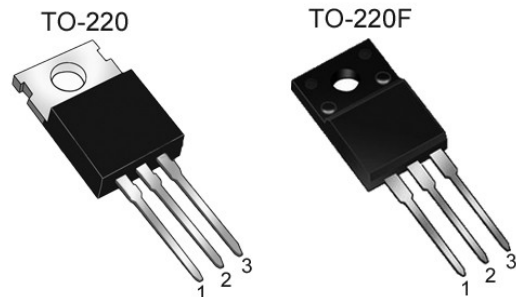
### MACHANICAL DATA

- ✧ Case: TO-220/TO-220F molded plastic package
- ✧ Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧ Molding Compound Flammability Rating: UL94-0
- ✧ High temperature soldering guaranteed: 260°C/10second
- ✧ Polarity: As marked
- ✧ Mounting position: Any

### APPLICATIONS

- ✧ Switching mode power supply applications
- ✧ Portable equipment battery applications
- ✧ High frequency rectification
- ✧ DC/DC converter

### PACKAGE OUTLINE



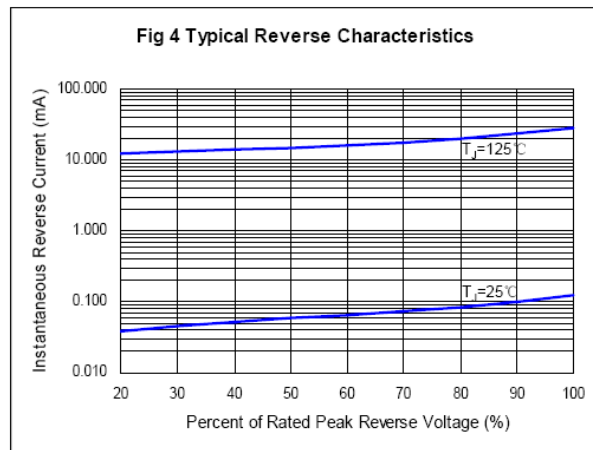
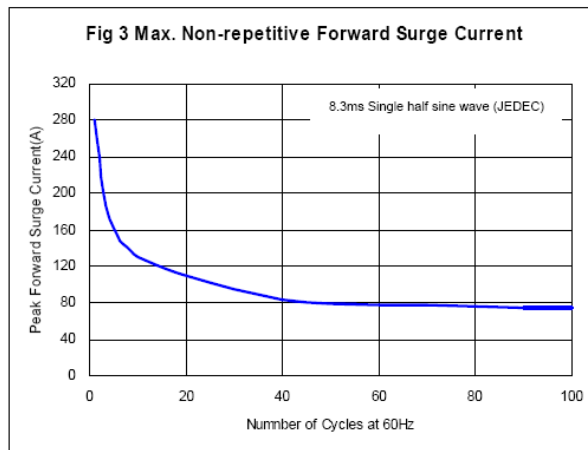
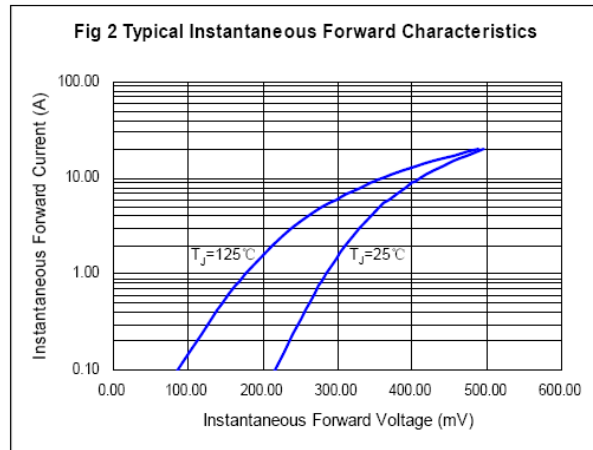
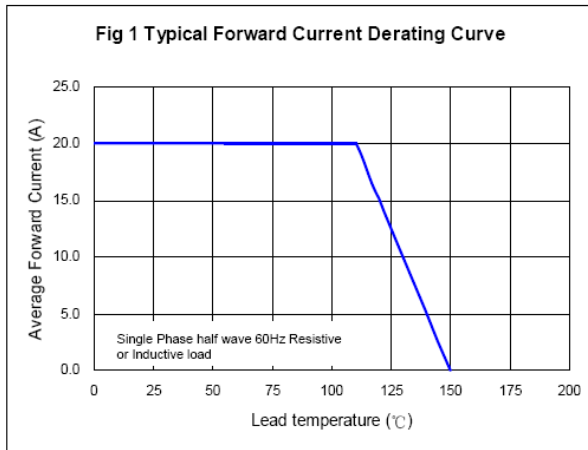
### ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
$V_{RRM}$	Repetitive Peak Reverse Voltage	45	V
$I_{F(AV)}$	Average Forward Current	Total device 40 Per Leg 20	A
$I_{FSM}$	Peak Forward Surge Current, 8.3ms single half sine-wave Per Leg	280	A
$T_J$ & $T_{STG}$	Junction and Storage Temperature	-40~+150	°C

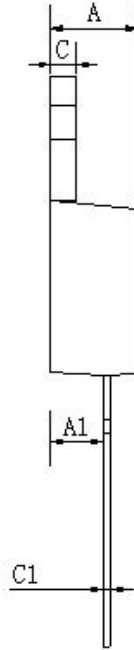
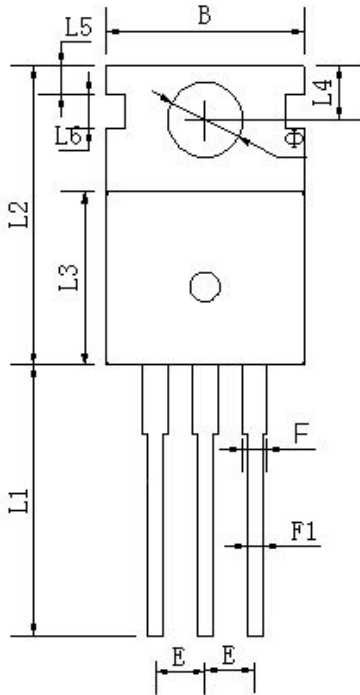
### ELECTRICAL CHARACTERISTICS(per leg.) (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 20A Ta=25°C			0.52	V
		I <sub>F</sub> = 20A Ta=125°C		0.48	0.50	V
V <sub>R</sub>	Reverse Breakdown Voltage	I <sub>R</sub> = 0.5mA	45			V
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> = 45V Ta=25°C			200	ΦA
		V <sub>R</sub> = 45V Ta=125°C			50	mA

### ELECTRICAL CHARACTERISTICS CURVE

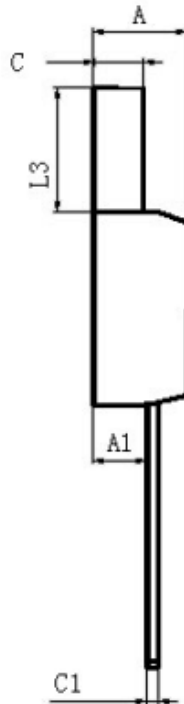
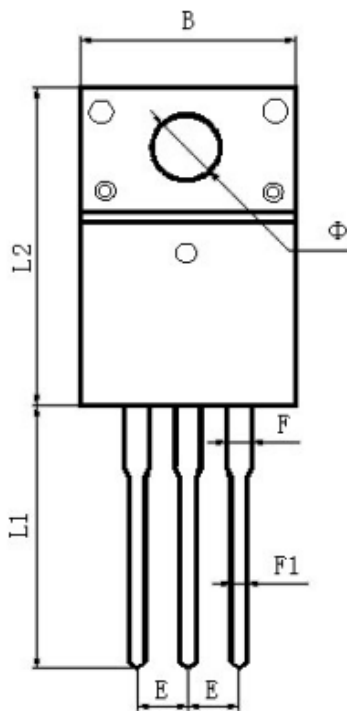


### TO-220 PACKAGE OUTLINE DIMENSIONS



DIM	MIN	NOM	MAX
A	4.25	4.45	4.65
A1	2.47	2.67	2.87
B	9.86	10.16	10.46
C	1.22	1.27	1.37
C1	0.33	0.38	0.48
E	2.44	2.54	2.64
F	1.07	1.27	1.47
F1	0.7	0.8	0.9
L1	12.5	13.5	14.5
L2	14.94	15.24	15.54
L3	8.55	8.85	9.15
L4	2.54	2.74	2.94
L5	1.07	1.27	1.47
L6	1.45	1.65	1.85
Φ	3.64	3.84	4.04
Unit mm			

### TO-220F PACKAGE OUTLINE DIMENSIONS



DIM	MIN	NOM	MAX
A	4.50	4.70	4.90
A1	2.56	2.76	2.96
B	9.86	10.16	10.46
C	2.34	2.54	2.74
C1	0.45	0.50	0.60
E	2.34	2.54	2.74
F	1.08	1.28	1.48
F1	0.7	0.8	0.9
L1	11.98	12.98	13.98
L2	15.57	15.87	16.17
L3	6.48	6.68	6.88
Φ	2.98	3.18	3.38
Unit mm			