

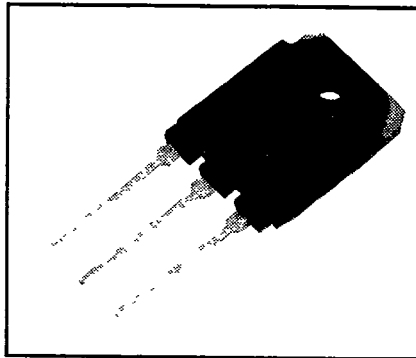
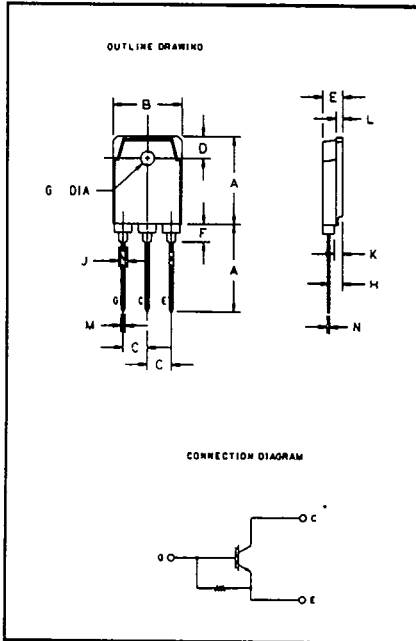


T-39-31

**CT15AM-24E Tentative**

Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272  
 Powerex Europe, S.A., 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

**Discrete IGBT  
 Insulated Gate Bipolar  
 Transistor  
 15 Amperes/1200 Volts**



**CT15AM-24E  
 Insulated Gate Bipolar Transistor  
 15 Amperes/1200 Volts**

**1200 Volts, CT15AM-24E  
 TO-3P Outline Drawing**

Dimension	Inches	Millimeters
A	.787	20
B	.614	15.6
C	.214 ± .008	5.45 ± 0.2
D	.197	5
E	.177	4.5
F	.157	4
G	.126 ± .008 Dia.	3.2 ± 0.2 Dia.
H	.110	2.8
J	.079	2
K	.071	1.8
L	.059	1.5
M	.039	1
N	.024	0.6

**Description**

Powerex Discrete IGBT's are designed for switching applications where a wide and rugged SOA is required.

**Features:**

- $t_f = 1 \text{ usec Max}$
- Low  $V_{ce(sat)} = 2.5 \text{ (typ)}$

**Applications:**

- AC and DC Motor Control
- Motion/Servo Control
- UPS
- Welding Power Supplies
- Laser Power Supplies
- Robotics

**Ordering Information**

Example: Select the complete 9 digit part number you desire from the table — i.e. CT15AM-24E is a 1200 Volt ( $V_{ces}$ ), 15 Ampere IGBT.

Type	$V_{ces}$ Volts	Current Rating Amperes
CT15AM-24E	1200	15



Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272

Powerex Europe, S.A., 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

### CT15AM-24E

#### Discrete IGBT

15 Amperes/1200 Volts

### Absolute Maximum Ratings, ( $T_J=25^\circ\text{C}$ unless otherwise specified)

Ratings	Symbol	CT15AM-24E	Units
Power Device Junction Temperature	$T_J$	-40 to +150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 to +150	$^\circ\text{C}$
Collector — Emitter Sustaining Voltage	$V_{ces}$	1200	Volts
Gate — Emitter Voltage	$V_{ges}$	+ -20	Volts
Gate — Emitter Voltage	$V_{gem}$	+ -30	Volts
Collector Current	$I_C$	15	Amperes
Peak Collector Current	$I_{CM}$	30	Amperes

### Static Electrical Characteristics, ( $T_J=25^\circ\text{C}$ unless otherwise specified)

Characteristics	Symbol	Test Conditions	CT15AM-24E			Units
			Min.	Typ.	Max.	
Collector Cutoff Current	$I_{ces}$	$V_{ce} = V_{ces}, V_{ge} = 0V$	—	—	1	ma
Gate Leakage Current	$I_{ges}$	$V_{ge} = V_{ges}, V_{ce} = 0$	—	—	0.5	ma
Collector Emitter On State Voltage	$V_{ce(on)}$	$I_C = 15A, V_{ce} = 15V$	—	2.5	3.5	Volts
Gate-Emitter Threshold Voltage	$V_{ge(th)}$	$I_C = 1.5mA, V_{ce} = 10V$	3	4	6	Volts

### Dynamic Electrical Characteristics, ( $T_c, T_J=25^\circ\text{C}$ unless otherwise specified)

Characteristics	Symbol	Test Conditions	CT15AM-24E			Units
			Min.	Typ.	Max.	
Input Capacitance	$C_{ies}$	$V_{ce} = 25V$	—	2000	—	pf
Output Capacitance	$C_{oes}$	$V_{ge} = 0V$	—	150	—	pf
Reverse Transfer Capacitance	$C_{res}$	$f = 1MHz$	—	20	—	pf
Turn On Delay Time	$t_{d(on)}$	$I_C = 15A$	—	0.4	—	$\mu\text{s}$
Turn On Rise Time	$t_r$	$V_{cc} = 600V$	—	0.2	—	$\mu\text{s}$
Turn Off Delay Time	$t_{d(off)}$	$V_{ge} = 15V$	—	0.4	—	$\mu\text{s}$
Turn Off Fall Time	$t_f$	$R_g = 25 \text{ ohm}$	—	0.3	—	$\mu\text{s}$

This specification is tentative; therefore, performance curves are not included. Please contact the Powerex sales representative nearest you for further information.