ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

RoHS 2002/95/EC

NTE2690
Silicon NPN Transistor
TV Horizontal Deflection Output w/Damper Diode
TO–3MPL Type Package

Features:
- High Voltage, High Speed
- Low Collector Saturation Voltage
- On–Chip Damper Diode

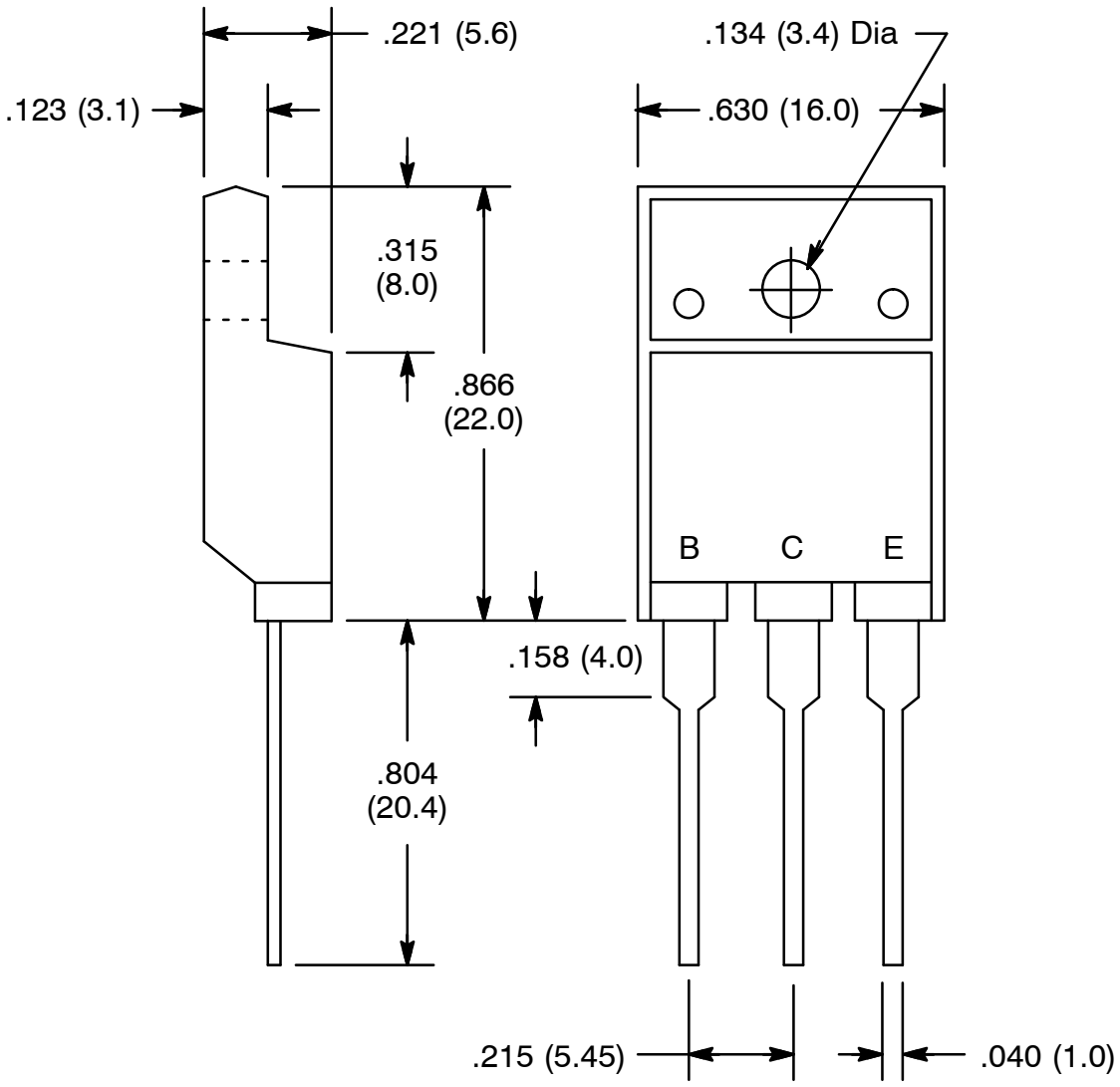
Applications:
- Horizontal Deflection Stage in Standard and High Resolution Displays for TVs and Monitors
- Switching Power Supplies for TVs and Monitors

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage (Open Emitter), V_{CBO} 1700V
Collector–Emitter Voltage (Open Base), V_{CEO} 700V
Emitter–Base Voltage (Open Collector), V_{EBO} 10V
Collector Current, I_C
  Continuous 8A
  Peak (t_p < 5ms) 15A
Base Current, I_B
  Continuous 5A
  Peak (t_p < 5ms) 8A
Collector Dissipation (T_C = +25°C), P_C 60W
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –65° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 2.08°C/W

Electrical Characteristics: (T_J = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector–Emitter Sustain Voltage	$V_{CEO(sus)}$	I_C = 100mA, I_B = 0		700	–	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 5A, I_B = 1.25A		–	–	1.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 5A, I_B = 1.25A		–	–	1.3	V
Collector Cutoff Current	I_{CES}	V_{CE} = 1700V, V_{BE} = 0		–	–	1.0	mA
			T_J = +125°C	–	–	2.0	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0		–	–	200	mA
DC Current Gain	h_{FE1}	V_{CE} = 5V, I_C = 1A		8	–	–	
	h_{FE2}	V_{CE} = 5V, I_C = 5A		6	–	–	
Diode Forward Voltage	V_F	I_F = 5A		–	–	2.0	V


.221 (5.6)
.134 (3.4) Dia
.123 (3.1)
.630 (16.0)
.315
(8.0)
.866
(22.0)
B
C
E
.158 (4.0)
.804
(20.4)
.215 (5.45)
.040 (1.0)