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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: ($T_A = +25^\circ\text{C}$ 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 ($t_p < 5\text{ms}$)	15A
Base Current, I_B	
Continuous	5A
Peak ($t_p < 5\text{ms}$)	8A
Collector Dissipation ($T_C = +25^\circ\text{C}$), P_C	60W
Operating Junction Temperature, T_J	$+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+150^\circ\text{C}$
Thermal Resistance, Junction-to-Case, R_{thJC}	2.08°C/W

Electrical Characteristics: ($T_J = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Collector-Emitter Sustain Voltage	$V_{CEO(sus)}$	$I_C = 100\text{mA}, I_B = 0$	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}	$V_{CE} = 1700V,$ $V_{BE} = 0$	$T_J = +25^\circ\text{C}$	-	-	1.0	mA
				-	-	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	

