



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

## MPS4355

### Silicon PNP Transistor Audio Amplifier, Switch TO-92 Type Package

**Absolute Maximum Ratings:**

Collector-Emmitter Voltage, $V_{CEO}$ .....	60V
Collector-Base Voltage, $V_{CBO}$ .....	60V
Emitter-Base Voltage, $V_{EBO}$ .....	5V
Continuous Collector Current, $I_C$ .....	1A
Continuous Power Dissipation, $P_D$ .....	625mW
Operating Junction Temperature Range, $T_J$ .....	-55° to +150°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	60	-	-	V
Collector-Emmitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$ , Note 1	60	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	5	-	-	V
Collector Cutoff Current	$I_{CES}$	$V_{CB} = 50\text{V}, V_{EB} = 0$	-	-	50	nA
DC Current Gain	$h_{FE}$	$V_{CE} = 10\text{V}, I_C = 100\mu\text{A}$	60	-	-	
		$V_{CE} = 10\text{V}, I_C = 1\text{mA}$ , Note 1	75	-	-	
		$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	100	-	400	
		$V_{CE} = 10\text{V}, I_C = 100\text{mA}$ , Note 1	75	-	-	
		$V_{CE} = 10\text{V}, I_C = 500\text{mA}$ , Note 1	75	-	-	
Collector-Emmitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 150\text{mA}, I_B = 15\text{mA}$ , Note 1	-	-	0.15	V
		$I_C = 500\text{mA}, I_B = 50\text{mA}$ , Note 1	-	-	0.9	V
Base-Emmitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 150\text{mA}, I_B = 15\text{mA}$ , Note 1	-	-	0.5	V
		$I_C = 500\text{mA}, I_B = 50\text{mA}$ , Note 1	-	-	1.1	V
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, f = 1\text{MHz}$	-	-	30	pF
Current gain-Bandwidth Product	$f_T$	$I_C = 50\text{mA}, V_{CE} = 10\text{V}$	100	-	-	MHz

Note 1. Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .

