ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE247 (NPN) & NTE248 (PNP)
Silicon Complementary Transistors
Darlington Power Amplifier

Description:

The NTE247 (NPN) and NTE248 (PNP) are silicon complementary Darlington transistors in a TO3 type case designed for general–purpose amplifier and low–frequency switching applications.

Features:

- High DC Current Gain: h_{FE} = 3500 Typ @ I_C = 5A
- Collector–Emitter Sustaining Voltage: $V_{CEO(sus)}$ = 100V Min @ 100mA
- Monolithic Construction with Built–In Base–Emitter Shunt Resistors

Absolute Maximum Ratings:

Collector–Emitter Voltage, V_{CEO} 100V
Collector–Base Voltage, V_{CB} 100V
Emitter–Base Voltage, V_{EB} 5V
Collector Current, I_C
  Continuous 12A
  Peak 120A
Base Current, I_B 200mA
Total Power Dissipation (T_C = +25°C), P_D 150W
  Derate Above 25°C . . . . . 0.857W/°C
Operating Junction Temperature Range, T_J . . . . . –65° to +200°C
Storage Temperature Range, T_{stg} . . . . . –65° to +200°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 1.17°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Collector–Emitter SustainingVoltage	$V_{CEO(sus)}$	I_C = 100mA, I_B = 0, Note 1	100	–	–	V
Collector Cutoff Current	I_{CEO}	V_{CE} = 50V, I_E = 0	–	–	1.0	mA
	I_{CEX}	V_{CE} = 100V, $V_{BE(off)}$ = 1.5V	–	–	0.5	mA
		V_{CE} = 100V, $V_{BE(off)}$ = 1.5V, T_A = +150°C	–	–	5.0	mA
Emitter Cutoff Current	I_{EBO}	V_{BE} = 5V, I_C = 0	–	–	2.0	mA

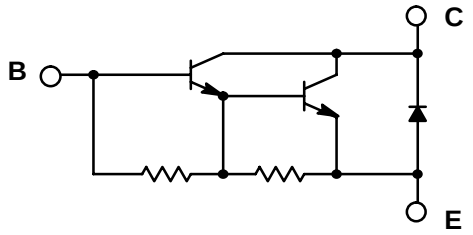
Note 1. Pulse Test: Pulse Width = 300μs, Duty Cycle = 2%

Electrical Characteristics (Cont'd): (T_A = +25°C unless otherwise specified)

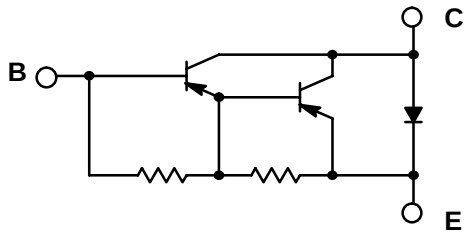
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
ON Characteristics (Note 1)						
DC Current Gain	h_{FE}	V_{CE} = 3V, I_C = 6A	750	–	18000	
		V_{CE} = 3V, I_C = 12A	100	–	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 6A, I_B = 24mA	–	–	2.0	V
		I_C = 12A, I_B = 120mA	–	–	3.0	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 12A, I_B = 120mA	–	–	4.0	V
Base–Emitter ON Voltage	$V_{BE(on)}$	V_{CE} = 3V, I_C = 6A	–	–	2.8	V
Dynamic Characteristics						
Small–Signal Current Gain	h_{fe}	V_{CE} = 3V, I_C = 5A, f = 1kHz	300	–	–	
Magnitude of Common Emitter Small–Signal Short–Circuit Forward Current Transfer Ratio	$\|h_{fe}\|$	V_{CE} = 3V, I_C = 5A, f = 1MHz	4.0	–	–	MHz
Output Capacitance NTE247	C_{ob}	V_{CB} = 10V, I_E = 0, f = 0.1MHz	–	–	300	pF
NTE248			–	–	500	pF

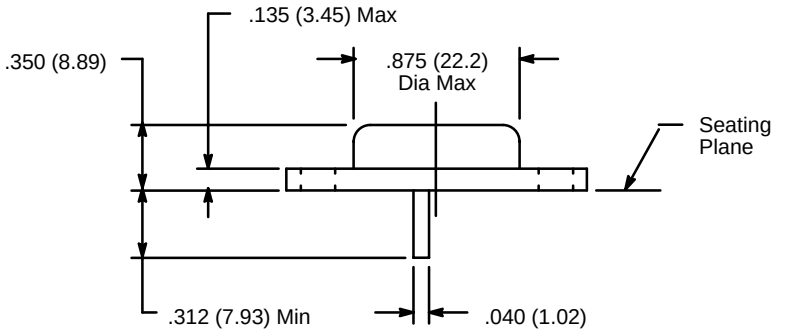
Note 1. Pulse Test: Pulse Width = 300μs, Duty Cycle = 2%

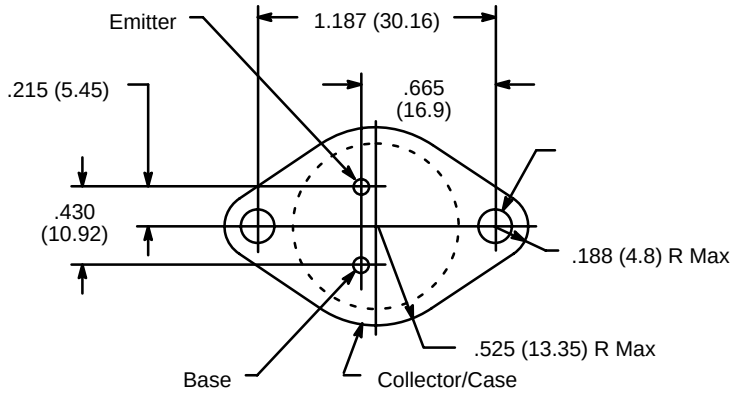
NTE247



NTE248







X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Darlington Transistors ***category:***

Click to view products by NTE ***manufacturer:***

Other Similar products are found below :

281287X SMMBT6427LT1G 2N7371 BDV64B JANTXV2N6287 028710A SMMBTA64LT1G 2N6350 2SB1214-TL-E SMMBTA14LT1G SBSP52T1G NJVMJD117T4G Jantx2N6058 2N6353 LB1205-L-E 500-00005 2N6053 NJVMJD112G Jan2N6350 Jantx2N6352 Jantx2N6350 BULN2803LVS ULN2001N 2SB1383 2SB1560 2SB852KT146B TIP112TU TIP122TU BCV27 MMBTA13-TP MMBTA14-TP MMSTA28T146 BSP50H6327XTSA1 KSH122TF NTE2557 NJVNJD35N04T4G TIP115 MPSA29-D26Z MJD127T4 FJB102TM BCV26E6327HTSA1 BCV46E6327HTSA1 BCV47E6327HTSA1 BSP61H6327XTSA1 BU941ZPFI 2SB1316TL 2SD1980TL NTE2350 NTE245 NTE246