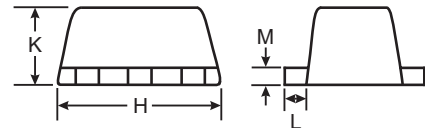
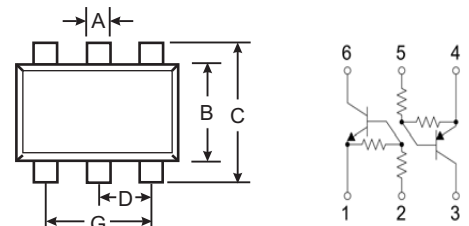




# EMD22

## Dual Transistors

### SOT-563



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.006	.011	0.15	0.30	
B	.043	.051	1.10	1.30	
C	.059	.067	1.50	1.70	
D	.020		0.50		
G	.035	.043	0.90	1.10	
H	.059	.067	1.50	1.70	
K	.021	.023	0.525	0.60	
L	.004	.011	0.10	0.30	
M	.004	.007	0.10	0.18	

## Features

- Halogen free available upon request by adding suffix "-HF"
- DTA143Z chip and DTC143Z chip are in a package
- Mounting possible with SOT-563 automatic mounting machines.
- Transistor elements are independent, eliminating interference
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking:D22

## Mechanical Data

DTr1 Absolute maximum ratings ( $T_a=25^\circ\text{C}$  unless otherwise specified)

Symbol	Parameter	Value	Unit
$V_{CC}$	Supply Voltage	50	V
$V_{IN}$	Input Voltage	-5~+30	V
$I_o$	Output Current	100	mA
$I_{C(MAX)}$		100	mA
$P_D$	Power Dissipation	150	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55~+150	$^\circ\text{C}$

DTr2 Absolute maximum ratings ( $T_a=25^\circ\text{C}$  unless otherwise specified)

Symbol	Parameter	Value	Unit
$V_{CC}$	Supply Voltage	-50	V
$V_{IN}$	Input Voltage	-30~+5	V
$I_o$	Output Current	-100	mA
$I_{C(MAX)}$		-100	mA
$P_D$	Power Dissipation	150	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55~+150	$^\circ\text{C}$

**Tr1 NPN ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Input voltage	V <sub>I(off)</sub>	V <sub>CC</sub> =5V, I <sub>O</sub> =100μA	0.5			V
	V <sub>I(on)</sub>	V <sub>O</sub> =0.3V, I <sub>O</sub> =5mA			1.3	V
Output voltage	V <sub>O(on)</sub>	I <sub>O</sub> =5mA, I <sub>I</sub> =0.25mA			0.3	V
Input current	I <sub>I</sub>	V <sub>I</sub> =5V			1.8	mA
Output current	I <sub>O(off)</sub>	V <sub>CC</sub> =50V, V <sub>I</sub> =0			0.5	μA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =10mA	80			
Input resistance	R <sub>1</sub>	-	3.29		6.11	KΩ
Resistance ratio	R <sub>2</sub> / R <sub>1</sub>		8		12	
Transition frequency	f <sub>T</sub>	V <sub>O</sub> =10V, I <sub>O</sub> =5mA, f=100MHz		250		MHz

**Tr2 PNP ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Input voltage	V <sub>I(off)</sub>	V <sub>CC</sub> =-5V, I <sub>O</sub> =-100μA	-0.5			V
	V <sub>I(on)</sub>	V <sub>O</sub> =-0.3V, I <sub>O</sub> =-5mA			-1.3	V
Output voltage	V <sub>O(on)</sub>	I <sub>O</sub> =-5mA, I <sub>I</sub> =-0.25mA			-0.3	V
Input current	I <sub>I</sub>	V <sub>I</sub> =-5V			-1.8	mA
Output current	I <sub>O(off)</sub>	V <sub>CC</sub> =-50V, V <sub>I</sub> =0			-0.5	μA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA	80			
Input resistance	R <sub>1</sub>	-	3.29		6.11	KΩ
Resistance ratio	R <sub>2</sub> / R <sub>1</sub>		8		12	
Transition frequency	f <sub>T</sub>	V <sub>O</sub> =-10V, I <sub>O</sub> =-5mA, f=100MHz		250		MHz



**Ordering Information :**

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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