Exicon Selected MOSFETs

Selected MOSFETs offer better reliability when used in parallel for high power applications.

The Exicon MOSFETs are designed for audio amplifiers. Unlike bi-polar transistors, they are well matched from N channel to P channel, resulting in high performance, low distortion audio. There is variation on parameters, notably threshold voltage. Although Lateral MOSFET variation is an order of magnitude better than switching MOSFETs, the selected versions offer closer matching on this parameter.

The matching is offered between MOSFETs of the same polarity and not between N to P channel. The benefit of closer matching on threshold voltage is the omission of current sharing source resistors even for high power amplifiers with many devices in parallel.

Notes

1. The test bands are different for N channel and P channel - see below.

2. There is no benefit from having the same colour dot as the test bands are not the same.

3. Matching N channel to P channel on threshold can be achieved in the amplifier by adding a DC offset to the gate drive.

Test conditions

Part	V_{GS}	V_{DS}
ECX10N20-S	0.5	25
ECF10N20-S		
ECW20N20-S		
ECF20N20-S		
ECX10P20-S	1.0	25
ECF10P20-S		
ECW20P20-S		
ECF20P20-S		

Colour Band	ECX10 / ECF10 Series		ECW20 / ECF20 Series	
	Min I_D - mA	Max I_D - mA	Min I_D - mA	Max I_D - mA
Red	105	125	210	250
Orange	125	140	250	280
Yellow	140	155	280	310
Green	155	170	310	340
Blue	170	185	340	370
White	185	205	370	410

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